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ABSTRACT

Four conference presentations in this report provide insights into and understandings of both the process of curriculum change and the direction that such change should take. Professor John I. Goodlad, in the first address, urges the development of a "humanistic curriculum." In the second presentation, Dr. William G. Hollister, a mental health authority, tells how to use traditional subject matter fields to achieve not only cognitive objectives, but also objectives in the affective domain, thereby more fully developing the humane characteristics of children. Professor Harry S. Broudy, an educational philosopher, points out the factors that must be included in a unified theory of education and takes the position that the lack of such a theory of education has in the past prevented development of a humanistic curriculum. In the last presentation, Professor Ronald Lippitt, an authority on the process of planned change, discusses a model for bringing about change in the curriculum. He analyzes six phases of the change process and illustrates these changes in detail by describing the steps that a curriculum change agent might take in developing new programs of education. (Author/JF)

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Curriculum Change: Direction and Process

Addresses at the 21st ASCD Annual Conference
San Francisco, California, March 13-17, 1966

Edited by Robert R. Leeper
Editor, ASCD Publications

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Foreword

THE theme for the 1966 Conference of the Association for Supervision and Curriculum Development, held in San Francisco, March 13-17, was "Strategy For Curriculum Change." The participants in the conference were so enthralled and stimulated by the four general session addresses devoted to this theme that the Executive Committee of the Association has authorized publication of these addresses. We believe that these papers comprise an outstanding contribution to the general subject of curriculum development in this country.

As a set, the four papers provide us with penetrating insights and understandings both of the process of curriculum change and the direction that such change should take. Each of them is forward looking, concerned with the future of schooling and education in this country, imaginative in its approach, and a forceful presentation of a point of view about the process or the direction of curriculum change.

ASCDers generally, and, I presume, most members of the profession, support most enthusiastically the point of view of Professor John I. Goodlad, a prominent member of our organization, when he said that our schools must move to the development of a "humanistic curriculum." In fact, we all hope that his prediction that the full implementation of the humanistic concept in education will not be substantially achieved until the year 2000 will prove to be in error, for such a concept of education must be implemented now. We hope that a humane approach to education will characterize the programs of many of our best elementary and secondary schools by the end of this decade and that most of the schools of the nation will be committed to the humanistic curriculum

within the next two decades. In light of the speed with which we can spread curriculum innovation and modification in this country at the present time, as illustrated by the developments that Goodlad has characterized as the "discipline-centered curriculum," this hope does not seem to be unrealistic.

And Dr. William G. Hollister, in proposing his "double-purpose curriculum," certainly lays a sound foundation on which to move rapidly in the development of a program of schooling directed more basically and more fundamentally to humanism. Dr. Hollister shows how we can use the traditional subject matter fields to achieve not only objectives in the cognitive domain of education, but also in the affective domain, thereby more fully developing the humane characteristics of children everywhere. This eminent authority on mental health states clearly how the enhancement of the three basic aspects of the ego contributes significantly to the development of humane people, furthermore, he illustrates how we may foster the fullest development of these aspects of ego functions through the curriculum, without waiting for a major restructuring or reorganization of the educational program. His comprehensive and very significant statement certainly points out to us possibilities for curriculum planning and development immediately, thus moving us more rapidly to Goodlad's third stage of curriculum development.

Professor Harry S. Broudy, the eminent educational philosopher, points out in an emphatic manner the factors that must be included in a unified theory of education and takes the position that the lack of such a theory of education has in the past prevented us from developing the kind of program that we need. And Professor Broudy obviously believes that this must be a humanistic curriculum. He points out that the division of those who wish to determine the nature of the educational program into two camps in the past has indeed been a disservice to the children and youth of this country, since it has resulted in a program that has lacked comprehensiveness and quality. By cooperating and working together on the basis of a unified theory of education all of those interested in the schooling of our young people, be they university professors in the disciplines, professional educators, members of boards of education, public opinion formulators, or parents, can provide the kind of education we need—a humanistic curriculum.

Professor Ronald Lippitt who long has been recognized as one of the nation's leading authorities on the process of planned change, provides an excellent concluding statement on the conference theme in his presentation of a model for bringing about change in the curriculum.

His analysis of the six phases of the change process as it must occur in schools is particularly helpful to curriculum planners, and his recommendations of things that need to be done to implement more adequately these six stages make sense. But Professor Lippitt also illustrates these changes in detail by describing the steps that a curriculum change agent might take in developing new programs of education. And it is just such steps that must be used by all of us concerned with the education of boys and girls if we are to develop soon the humanistic curriculum envisioned by Professors Goodlad, Broudy and Hollister.

It was indeed an exciting and stimulating conference, and I feel certain that these four addresses will be extensively studied and used by members of the profession as they seek a sense of direction not only for the process of curriculum change but for the nature of such change.

May 1966

Galen Saylor, *President, 1965-66*
Association for Supervision
and Curriculum Development

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Final editing of the manuscript and production of this booklet were the responsibility of Robert R. Leeper, Associate Secretary and Editor, ASCD Publications. Technical production was handled by Mary Ann Lurch, Editorial Assistant, assisted by Teola T. Jones, Staff Assistant, under the general supervision of Ruth P. Ely, Editorial Associate.

JOHN I. GOODLAD

Direction and Redirection for Curriculum Change

WE ARE in a period of tumultuous and perhaps unprecedented educational activity. This is obvious. Not all of the activity has reached into elementary and secondary schools. In fact, one often gets the almost eerie impression of huge cumulonimbus clouds of educational reform (and, for that matter, of educational consultants) drifting back and forth from coast to coast, high above us, only occasionally touching down to blanket a real, honest-to-goodness educational installation.

Some schools are very much as they were a quarter century ago. Some at least look different. Some are, indeed, different: in appearance, in organization, and—most important—in how and what they teach.

Of all the recent changes, what is commonly referred to as the current curriculum reform movement is and has been the most influential. It has reached into thousands of classrooms all across this land and abroad. The movement is now fifteen years old, if one takes the University of Illinois' Committee on School Mathematics, launched in 1951, as the beginning. True, the movement did not really get into high gear until soon after Sputnik (1957); and so intense curricular activity of the current brand is less than a decade old.

The movement is discipline-centered, the ends and means of schooling being derived from the academic subject. Some educators claim that this cycle of curriculum reform is over. I doubt this. But perhaps it has reached its peak in the sense that new thrusts are emerging, new outlines are taking shape. Our concern now is to be more with the *total curriculum*, not bits and pieces of it.

With a little luck, substantial funds, and a great deal of work, this new cycle just emerging, will plateau out in perhaps ten or fifteen years. If so, one might ask, "What comes next?" What is to be the third cycle of curriculum change in the second half of the twentieth century?

Here, each of us envisions his own curricular Bali Ha'i—a hazy, tranquil land lying just beyond the years of his anticipated active career. For me—with a little bit of luck and a great deal of Tiger's Milk—the target date for some visible fruition of a third cycle in curriculum development is about 1990-2000.

This third cycle of curriculum development I call "the humanistic curriculum"; the second, "the total curriculum"; and the first, "the discipline-centered curriculum." The career of a young man in perhaps his tenth year as an educator, then, might well embrace all three.

The three cycles of curriculum development which I am about to describe, in the case of the first, and to project, in the case of the second and third, are not discrete. They overlap. In fact, all three overlap now. There simply are plateaus of emphasis attained or to be attained.

Further, the plateau of each in the twentieth century represents but a momentary watering place in mankind's upward climb. And, certainly, these stages are not new. They merely represent the periodic, cyclical reappearance of some persistent themes in formal education: concern for man's organized subject matter, concern for the learner's total educational diet, and concern for man himself. None is ever completely absent; none is ever present in adequate combination with the others.

The Discipline-Centered Curriculum

If previous eras of curriculum development can be described legitimately as child-centered and society-centered, the present one can be described equally defensibly as subject- or discipline-centered. The ends and means of schooling now are to be derived from the nature of man's organized bodies of knowledge. The curriculum is to be planned by physicists, mathematicians, and historians to assure authenticity of content. Students are to come to think like these scholars. The word "structure" has replaced "the whole child" in curriculum jargon.

Many curriculum builders seek to organize their field around primary structural elements of the discipline: concepts, key ideas, principles, and modes of inquiry. It is assumed that understanding these elements (rather than merely possessing facts) gives the student intellectual power to attack unfamiliar problems and power to grasp intuitively the relationship of new phenomena not previously encountered to phenomena already experienced. Ability to think inductively becomes a built-in goal and teachers are encouraged to let students discover meanings for themselves.

The current curriculum reform movement is marked by an updating

of content, a reorganization of subject-matter, and some fresh approaches to methodology in fields traditionally taught in the schools. It is not simply a return to the 3 R's. Nor is it a repudiation of John Dewey or progressive education. Quite the contrary on both counts.

Grandpa would never recognize today's 3 R's. And many of the central concerns of progressive education—emphasis on principles rather than facts, on learning through problem solving rather than by precept, and on individual differences, for example—are stressed and extended by some of today's curriculum builders. But the emphasis, until very recently, has been almost exclusively on the discipline as a separate entity in the curriculum: not science but biology, chemistry, and physics; not social studies but history, geography, and economics; not English but literature, composition, and grammar.

The separate-subject approach creates few immediately visible problems for the secondary school. Traditionally, high school teachers have been prepared in a major field and supporting disciplines. Teaching that field in the high school effects a smooth transition from their own studies. Fusing two or more subjects, on the other hand, adds a curriculum planning burden to teaching demands and often calls for collaborative effort with colleagues. Perhaps this is why curriculum innovations such as the core curriculum (usually combining English and social studies) never achieved more than very modest success.

The separate-subject approach, however, creates some immediately visible problems for the elementary school. First, in all but a very few states, *elementary teachers are prepared as generalists rather than as specialists in subject fields.* Second, there is a limit to the number of disciplines that can be taught within the time available and so some very difficult choices must be made. There simply cannot be thirty or more separate subjects in the curriculum. Third, if the basic structures and root concepts of the academic disciplines are to form the curriculum design of secondary education, what is to be the approach for elementary education? Is there something of more root nature than what is conceived for the high school?

Problems of this sort caused some hesitation in seeking to move forward in curriculum revision at the elementary school level with assumptions that had sufficed reasonably well for the secondary school. Some reexamination was called for and some fresh approaches are beginning to emerge. For example, although four current, major efforts to reorganize the elementary school science curriculum differ markedly in their emphases, not one is committed to developing each science field separately. All see the need either to combine disciplines at the outset

or to begin separately while steadily effecting syntheses and integrations.

The prevailing mood is one of experimentation, of trying a variety of approaches to see what happens. The first cycle of current curriculum reform, initiated at the secondary school level, has not been experimental; it has been one of refining some initial assumptions. The second cycle, just beginning, is focused on the elementary school, questions the earlier assumptions, is likely to be more experimental, and in all probability will initiate a fresh round of curriculum revision for the high school.

It must be remembered that the impetus, planning, and financial support for the type of subject-centered curriculum revision currently taking place come from outside of the state and local school districts legally responsible for precollegiate public education in the United States. The leadership has not come from persons on the membership list of the Association for Supervision and Curriculum Development—ironically, one of the few professional organizations with the word "curriculum" on its letterhead.

The curriculum products of the Physical Science Study Committee, the School Mathematics Study Group, the Chemical Bond Approach Project, and so on, carry both ends and means of schooling into the classroom. It would be reassuring, perhaps, to believe that school districts, after careful appraisal of these materials, decided to use the products of one curriculum study group rather than another because they clearly served better those aims of education to which the districts are committed. But this is rarely the case. Few state departments of education and few school districts have devoted serious attention to the matter of determining in any precise way what their schools are for and what objectives are to be achieved.

We cling stubbornly to the notion of virtue in local control of education while allowing, through sheer omission, the most important decisions of schooling to be made by remote and impersonal curriculum planners who have been successful in securing National Science Foundation funds or other grants to support their work. Perhaps what has been going on this past decade is best for our children but we should be acutely aware of the decisions we are delegating and to whom. Developing this awareness and developing our stance toward it are curriculum agenda items for tomorrow.

It is unfortunate that the curriculum building experience and know-how represented in the Association for Supervision and Curriculum Development has not been on the forefront of current curriculum reform, giving it the balance it so badly needs. The fault is not entirely ours; nor are we without fault, either. And it is regrettable that we sometimes

have been carping critics, pouting on the sidelines. Yet it is inexcusable and embarrassing that sometimes, too, we have been so ill-informed, so woefully ignorant of what the current curriculum reform movement is about, that we have not been able to render critical assistance or mount a rational dissent. Surely this knowledge will not hurt us.

We have a fresh chance for leadership now. The curriculum needed an injection of revitalized substance and syntax. This, we readily admit, is not our strength and, just prior to the current movement, we chided our academic colleagues for not providing it, for not being interested in precollegiate education. But now we need balance in the curriculum: balance between the learner and his material and balance among subjects. We need more precise objectives and we need to check the relationship of these objectives to more remote aims of education. We need criteria for all kinds of choices and decisions. And we need operational models of what happens when we use differing data and differing sets of values in making these decisions. These are the pursuits for this emerging second cycle of curriculum development.

It is for these pursuits that we claim some competence. Let us be sure, then, that the next decade does not find us standing on the sidelines once again.

The Total Curriculum

The current curriculum reform movement has filled in some gaps, righted some deficiencies, and provided some notable assets for the cycle lying ahead. In the process, however, it has spawned some excesses and shortcomings of its own which now must be remedied. In particular, the separate-subject approach to curriculum organization has proved troublesome.

Those subjects traditionally in the high school program, whether or not previously combined with others, and especially when seen as closely related to national welfare (hence mathematics, biology, chemistry, physics, and foreign languages) have received added strength. But those previously receiving little or no attention—as economics, law, psychology, political science, anthropology, sociology, and geography—fields which have both changed and expanded rapidly in recent years—now have an even more difficult time in finding a toehold.

Add to this the facts that curriculum reformers in the well-established fields want extra periods or another year or both, that the position of the arts always has been tenuous, that we are not at all clear on the role of the secondary school in vocational education, and formidable

time problems emerge. Clearly, some decisions of curriculum planning are too important to be left to the political log-rolling of subject-matter specialists.

The problems of an elementary school curriculum organized around discrete disciplines are no less troublesome, as we have seen. The search for the beginnings of truly fundamental concepts and for ways of introducing these effectively to the very young has proved both challenging and baffling, separating the men from the boys in curriculum reform. An equally baffling task has been the selection of subjects to be included. Which of the many natural and social sciences, for example, should be chosen among all those available? Subjects must be combined, alternated one with another, or placed in some hierarchy of significance.

One possible solution for the choice problem is to select and teach key ideas from a broad realm of knowledge, irrespective of the subjects to which these ideas most closely belong. This approach is likely to characterize at least some future planning in the social studies where the possibility of allocating time to each social science is remote. It is possible to select topics which give attention, at various times, to fundamental concepts such as supply and demand (economics), due process (law), consent of the governed (political science), cultural evolution (anthropology), and so on, without identifying each subject and giving it a place in the curriculum.

This approach smacks of the much maligned broad fields type of curriculum organization practiced in the '30's and '40's. But with a critical difference. Scholars in the various academic disciplines were not then involved in the difficult process of identifying in their fields what is worth knowing and teaching at precollegiate levels. But first-rate scholars are involved now and, in all probability, will continue to be.

Another possibility for taking care of the plethora of subjects struggling for recognition in the curriculum is to identify intellectual processes common to several related disciplines and to teach for them, again without providing a place for all the disciplines represented in a realm of knowledge. This is a significant aspect of *Science—A Process Approach* for the elementary school, sponsored by the American Association for the Advancement of Science. This approach is organized around desired behaviors such as the following: observation, classification, recognition and use of space-time relations, recognition and use of numbers and number relations, measurement, communication, inference, and prediction. Shades of John Dewey!

The criticism of both approaches is that they sacrifice the ways of viewing and thinking about organized knowledge that constitute the

very essence of current discipline-centered curriculum reform. This criticism, which is at the same time a defense of the separate subject approach, is to be expected, of course. The innovators who instigated recent reform now become conservative in its defense. But change is by definition a shift from what exists. And so a new generation of change-agents appears, seeking to correct the excesses in what exists. Tension results. Out of this tension, a new cycle is born.

The criticism of these proposals for correcting an excess of subject matter in the curiculum throws us into the classical either-or curriculum dilemma in which we seem unable to have our cake and eat it, too. Exploding knowledge suggests the need for breadth. But power to deal significantly with any aspect of the knowledge explosion demands depth. And so we have cyclical dominance of first one and then the other.

There is a way out of this dilemma, I believe, which we have been patently reluctant to follow. Let us assume, first, that there is enough wisdom on each side of the long-standing breadth-depth argument to warrant substantial recognition for both. History supports us in this assumption. We alternate at intervals from thought and practice emphasizing breadth to thought and practice emphasizing depth, with the latter position firmly in the saddle at present. It follows, then, that there is soon to be change, this change constituting a fresh emphasis on general education.

Let us assume, second, that virtually all of our young people will complete high school. Let us think, therefore, of precollegiate education in the full sweep from nursery school or kindergarten through the secondary school. And let us remember, too, that children and youth go through distinct phases of development, determined by both biological and environmental factors, even though this development is irregular and markedly different from individual to individual.

Should we not think and plan, therefore, for successive, sequential phases of schooling, each with unique and distinctive functions as well as common school functions, and each geared as much as possible to successive phases of human development and societal expectation? Thus, the early childhood phase might devote itself over a period of two or three years to the development of awareness, self-confidence, and habits of thought; a subsequent phase of three or four years to fundamental skills of speaking, reading and writing; a later phase to significant ideas and modes of thought irrespective of subjects represented; and a still later phase to the strategies of discrete academic disciplines. With phases overlapping each other, a student might be in more than one at once, according to the irregularity of his growth. He would miss none.

The "phases" concept of schooling proposes a cycling of curricular empha es for each individual, adding up to experience in all of them by completion of high school. This is in marked contrast to traditional processes of cycling by generations in which an individual completely skips a curricular emphasis simply because of when he happens to live. He misses involvement in a significant, alternative pattern of curriculum organization, not because it is less viable, but because it is out of fashion.

Our continuing curriculum sin is that we *vacillate from excess to excess*, with what is currently fashionable in curriculum thought being applied indiscriminately to the whole of formal education, from nursery school through college. Needed is thorough appraisal of functions thought to be appropriate for each successive phase of schooling, translation of these functions into specific educational objectives, and allocation of human and material resources specifically pertinent to attainment of these objectives. These are tasks for state and local school systems, aided by the research and development centers and the regional laboratories now made possible by actions of the 88th and 89th Congress of the United States.

We have no models for this work. Local school districts, which experience the vexing problems of curricular choice most directly, lack the resources for the development of comprehensive curriculum design. State departments of education are not staffed for the job. And even a cursory analysis of the hodgepodge approach to curriculum planning provided by most states reveals that these agencies are not at all clear on their leadership role. The curriculum staffs of colleges and universities, with only a few exceptions, are very weak. They have offered neither ordered, conceptual schemes by means of which curricular problems might be placed in perspective nor research on anything other than minuscule problems. The time is come to rise above parochial considerations in the creation of cooperative approaches to curriculum study and improvement which bring together research, facilities and techniques for field testing, and machinery for implementation across the whole length and breadth of the curriculum.

The NEA Project on Instruction anticipated the need for these approaches and recommended the creation of regional centers to study the curriculum as a whole.[1] It appears that we are to have several such centers, the Center for the Study of Instruction of the NEA (the Project's successor) being one of them. Subject-by-subject curriculum reform

[1] *Schools for the Sixties*. A Report of the Project on Instruction, National Education Association. New York: McGraw-Hill Book Co., 1963. p. 22-24.

is an important, never-ending enterprise and must continue. But, by its very nature, this approach cannot resolve the comprehensive issues of the total curriculum now standing before us.

I am anticipating, then, a decade or two of emphasis on the total curriculum, with a resurgence of interest in general education. Regrettably, this emphasis is likely to be overemphasis and what is conceived to be good is likely to be perceived as good for all levels of schooling. I am not at all encouraged that my proposal for sequential phases of schooling, with correction for one phase built into the next phase in a student's life rather than into the next generation of students, will gain much currency. But I am hopeful that this next cycle will profit from what we have learned, that it will not repudiate the past fifteen years.

Each cycle carries with it a little gold dust from the previous one, usually just enough to keep in view some deeper vein of human thought and progress. Bruner's assertion that "... any subject can be taught effectively in some intellectually honest form to any child at any stage of development"[2] provided the touchstone for many current curriculum reformers. But Bruner went on to say that "The task of teaching a subject to a child at any particular age is one of representing the structure of that subject in terms of the child's way of viewing things"[3]—an observation which some of his critics have overlooked or chosen to ignore. Cremin refers to this essential process of transforming knowledge as humanizing it, using the concept to point to elements of continuity from the work of the early progressives to that of the current curriculum reformers.[4]

Is it possible, then, that the decade of curriculum change immediately ahead of us will see an end to the subject-learner dichotomy, the dichotomy that has rudely separated many of our Association for Supervision and Curriculum Development members from current curriculum reformers in so costly a fashion? Are we to see, at long last, some operational curriculum models linking the substance and syntax of subject matter and the cognitive styles of learners? These would be achievements worth being alive to see.

Yet even the heroic efforts necessary to their accomplishment will not give us, by the end of the century, the humanistic curriculum promised at its beginning. It is to this curriculum that I now turn.

[2] Jerome S. Bruner. *The Process of Education.* Cambridge: Harvard University Press, 1960. p. 33.

[3] *Loc. cit.*

[4] Lawrence A. Cremin. *The Genius of American Education.* Horace Mann Lecture. Pittsburgh: University of Pittsburgh Press, 1965. p. 54-55.

The Humanistic Curriculum

Webster defines humanism as "a way of life centered upon human interests or values." Only within a humanistic conception of education and a humanistic conception and conduct of the whole of schooling can a humanistic curriculum take shape; that is, a curriculum which provides a way of life centered upon human interests and values. Perhaps I can best sharpen what I mean through the use of several scattered examples of what humanistic education is not.

First, we do not yet value education for the right reasons. The central force in our striving for more formal education—far and away greater than any other force—is our expectation that education is directly related to the acquisition of worldly goods, to easier access to certain circles of power and influence, and to admission of our children to the most prestigious colleges. So deeply embedded in our value system is this expectation that we are willing to commit—indeed, to sacrifice—our sons' and daughters' childhood and youth to its fulfillment, and do so commit and sacrifice.

Second, the school, in its service to society, mirrors this expectation and effectively fulfills it. Nowhere is this observation more clearly substantiated than in our marking practices. We have devised a system of rewards and punishments which is extraneous—and probably deleterious—to learning, which is based on society's materialistic conception of education the schools have so successfully internalized, and upon which the students' entry into what they, too, are now internalizing, so heavily depends. We are becoming acutely aware of at least the materialistic consequences of lack of success in the system. Yet we have thought scarcely at all about some possibly alarming human consequences of complete adjustment to and success in the system.

The societal commitment to non-humanistic expectations has been so thorough that large numbers of children, by their teens, completely identify with them and elevate no other credible purposes for education, as the recent survey of youth in Webster Groves, Missouri, has so startlingly revealed. Perhaps some later, traumatic experience with the Peace Corps, human deprivation, or man's inhumanity to man will provide them a glimmer of more ennobling ends for education. There is some sobering comfort, too, in the realization that humanistic expectations, like non-humanistic expectations, *could* become pervasive through total commitment by home and school.

Third, we have too little faith in man's ability to find worthy interests and, self-propelled by these interests, to do good work in the absence

of coercion. Consequently, we hasten to initiate others into our own interests, especially if these persons are young and we are responsible for their welfare. When they balk before this narrow range of alternatives, we exercise restraints and impose punishments. What should be a happy, shared pursuit becomes negative, punitive, and a source of conflict.

This lack of faith carries over into the conduct of schooling. University personnel hesitate scarcely at all in imposing on precollegiate personnel what they would never tolerate for themselves. Teachers can hardly feel valuable when curriculum reformers strive to produce "teacher-proof" materials. Perhaps it is because many teachers have no sense of sharing in educational decisions that really count, in the excitement of curriculum change, that some of them become distrustful of and negative toward their pupils. What motivated one junior high school teacher, for example, to set before her students the following regulations with accompanying demerits for violating them?

> Failure to bring book, pen or pencil, paper, for assignment
>
> Failure to have book covered
>
> Failure to return warning notice within three days
>
> Disturbing the class in any way
>
> Failure to follow directions immediately
>
> Arguing or talking back
>
> Leaving chair out at end of class
>
> Causing any kind of trouble for a substitute teacher.

It would be comforting to think that this is an isolated example but it is not. We can all add our own examples extracted from ongoing practice.

Large segments of our educational enterprise, reflecting and supporting the larger social structure, simply do not provide a way of life centered upon the interests and values of their clients. In fact, many schools do not regard their students as clients and thus fail to reach the students in any deep and meaningful way. Perhaps we will regard their time as valuable only when we pay them to go to school, as some economists seriously propose we do.

A humanistic conception of education manages, however, always to stay with us, to enjoy continuing reinterpretation, and to attract its spokesmen. Such a conception sets as its goal the development of each individual's potential; fosters school programs centered on man; takes teachers and teaching seriously; and values each student simply because he is a human being. The product of humanistic schooling perceives

himself as valuable but is not narcissistic in this perception. He identifies with mankind—all mankind.

How encouraged dare we be in envisioning substantial fruition of humanistic curriculum by the year 2000? This depends in large measure on how well we have learned and are learning some important lessons.

The first lesson grows out of the period in American education immediately preceding the current curriculum reform movement. Shocked by the human devastation of World War II, we sponsored sweeping child study programs centered on the value of each individual. But we defined curriculum as broadly as life itself and so failed to influence significantly the content of learning. Dan Prescott, the leader in the movement, observed the conspicuous absence of curricula built around needs and developmental tasks. Did we learn, in the words of Bruno Bettelheim, that love is not enough?

Recent curriculum reforms, on the other hand, were motivated more by subject-matter deficiencies, the knowledge explosion, and a cold war of the intellect rather than by a hot war of blood and bone. With a much narrower definition of curriculum, these reforms replaced the *content* of learning and placed new *things* of instruction in the classroom. Consequently, this curriculum reform has been far more influential than any of the recent innovations. But there has been overconfidence in the power of the materials, accompanied by the belief during recent years of the movement that teachers either could be prepared quickly to use them or could not actually defeat the intent of the materials, anyway. This is an erroneous assumption, as witnessed by the number of teachers who unwittingly destroy the intent of the new, inductive curricula by teaching large segments of them deductively. The second lesson, then, is that the well-designed learning package, like love, is not enough.

The third lesson, closely related, is that knowledge, reconstructed so as to make it comprehensible "in some intellectually honest form to any child at any stage of development," is not a humanized curriculum. As Cremin points out so well, this principle clears the air of a lot of nonsense about readiness but it merely liberates us "to begin the determination of what ought to be taught to children at any given stage."[5] More important, to paraphrase Bettleheim once again, it liberates us to go beyond this non-question of what our children and youth should learn to the real question of what persons should they be.[6] Now we

[5] *Ibid.*, p. 56.

[6] Bruno Bettelheim. "Notes on the Future of Education." *University of Chicago Magazine* 58 (5): 13.

have some hope of conceiving a humanistic curriculum because, at long last, we address ourselves to a truly human question.

The fourth lesson is a political one. Most of us in the field of education are politically naive in the larger political arena, although we are now learning very rapidly. We have not been at all naive or unskilled, however, in the smaller arena of our own daily operations. In fact, William Benton, when he was vice-president of a major university after having been a United States Senator, spoke longingly of getting back to Washington again where his colleagues at least played by a generally understood and accepted set of rules.

The lesson is that ideas, to make any real difference, must find their way through the political structure. Most good ideas perish long before they penetrate this elaborate formal and informal labyrinth. But we have seen striking evidence of what can happen when education—conceived in recent years as an instrument of national welfare—receives vigorous political support providing both the forum for a nation-wide dialogue and the funds to support governmental intent. The lesson now standing sharply revealed is that government can enhance mightily a comprehensive commitment of home and school to a conception of education. Further, it can and does shape this commitment and will continue to shape it.

The question of fundamental curricular concern is, "What *kind* of commitment is likely to be shaped and supported?" I am encouraged to believe that it is likely to be toward a humanistic conception of education. In the past eight years, there has been a truly remarkable shift in emphasis in the individual-and-society interplay as represented by federal educational pronouncements and enactments.

The National Defense Education Act (1958), motivated by immediate national ends, sought to produce quickly what resolution of the Nation's external crises needed badly. The reasons for and the language of the 1963 and 1964 Federal NDEA legislation shifted toward developing the individual for his own sake but still placed predominant stress on financial return from education and keeping the Nation strong. By 1965, however, the individual and his country were approaching an even balance in the Federal concern for education. In the words of President Johnson, "Every child must be encouraged to get as much education as he has the ability to take. We want this for his sake and we want this for the country's sake" (January 12, 1965). The duality of individual development on one hand and societal welfare on the other begins to merge in growing understanding of how the two are inextricably intertwined.

By 1965, a concept of education for all mankind was finding its place in official Washington statements. Said President Johnson, "... education as a force for freedom, justice, and rationality knows no national boundaries—it is the great universal force for good" (February 1, 1965). Then, in the summer of 1965, while Congress was still debating the new Higher Education and Teaching Profession Acts, Vice President Hubert H. Humphrey, in an address before 700 of the country's leading educators and deeply involved lay citizens, stated a concept that seems well on the way to becoming a full-scale federal commitment to education for the individual, the Nation, the society, and mankind:

> ... we are dealing with God's most precious entity, a human being, the mind, the spirit, the soul of man....
>
> I know and you know that what we have to do is to build, restore the kind of social and economic and natural institutions that permit a man to be emancipated, to free himself, to live, and to express himself....
>
> The American educator and the American citizen need to think in larger terms, more ambitious terms, than we have ever yet begun to contemplate. The lessons we learn at home, therefore, must be applied to other places. We of this generation have the chance—oh, what a wonderful chance—to be remembered, as Toynbee said, not for crimes or even for astonishing adventures, but as the first generation that dared to make the benefits of civilization available to the whole human race (White House Conference on Education, July 21, 1965).

President Johnson has said, "If we are learning anything from our experiences, we are learning that it is time to go to work, and the first work of these times and the first work of our society is education." The assumptions are formidable and the tasks enormous.

Can all individuals really profit from education? The evidence is persuasive even at a time when the curriculum is far from humanistic. And what about the consequences of this education, conceived humanistically?

Will increased utilization of knowledge and of rational processes, supposedly direct benefits from education, arouse us from lethargy before we expire from our own poisons or strangle in our own gases? Will these same benefits arouse us also to full awareness of the man-made ugliness surrounding us on every hand? Will increased quantity and enhanced quality of education elevate our thoughts and ennoble our actions toward all men? Will the extension of full educational opportunity to all the world's peoples bring peace? If the answers lie not in education, then we have at present no answers at all.

HARRY S. BROUDY

Needed: A Unifying Theory of Education

ANTIDISESTABLISHMENTARIANISM is more than a mildly comical tongue twister these days. For there is much talk of Establishments and the revolt against them in all phases of life, including education.

The American public school is caught in a struggle between establishments, a struggle that may go down as the distinctive feature of school history in America in the last half of the 20th century. This confrontation has sparked anew the old controversies about educational authority and the proper bases for decision in the conduct of the schools.

Establishments—Old and New

For convenience I shall refer to the Old and New Establishments in education, but strictly speaking it is more appropriate to speak of the public school Establishment and the higher education Establishment, for the spearhead of the attack upon the professional educationist has been the liberal arts college professors together with their alumni sympathizers in philanthropic foundations, business, industry, the press, and government.

The New Establishment looks to the upper middle class products of the Ivy colleges for its models of excellence and to the huge corporations for the patterns of decision making. A large percentage of the public school Establishment, on the other hand, came up from less lofty layers of the social order and look to the American town meeting for the patterns of policy making. The schooling of the common man in common schools still is for them the most significant expression of America and American democracy, more of a Jacksonian than a Jeffersonian democracy.

The New Establishment is an effective alliance between the academic elite and what C. Wright Mills called the "power elite." This was inevitable, because increasingly all forms of power depend on idea power. It is a New Establishment only in regard to the public schools; it has always been the dominant voice in American life. And it is an Establishment because it has recently gained control of key governmental positions in Washington; because it has access to vast sums of money, both public and private, and because it has already identified pools of personnel who share its views and values and who can be put into strategic positions. Even more important is the success of the new group in enlisting the services of many of the more able members of the Old Establishment, because this strengthens the new power structure and weakens the old one. This strategy is at least as old as Machiavelli.

But the greatest strength of the New Establishment lies in the indisputable deficiencies in the American public school system; and its greatest weakness lies in the fact that without the Old Establishment there would not have been and there will not be an American *public* school, and this the American people are not ready to give up.

Accordingly, the New Establishment, despite its great power, must work through the personnel and institutions of the Old one. It must persuade or force education innovations upon a vast heterogeneous assortment of schools, teachers, pupils, and school boards that not even by courtesy can be called a system—and have no intention of becoming one! These pressures are now generating moral and political issues of the first importance.

The pressures generated by the New Establishment to adopt certain curriculum proposals were described in 1965 in an address before the Association for Supervision and Curriculum Development by my former colleague, Harold C. Hand.[1] At that time Dr. Hand argued that decisions about schooling were being made by persons and agencies who had no legal responsibility to the citizenry, that is, to local school boards or other officials to whom the legal responsibility for setting policy in education has been delegated.

This year, as you know, Professor Hand is vigorously opposing proposals to institute national assessment programs which, in his view, will inevitably evolve into national testing programs which, in turn, will be coercive on the entire educational system.[2]

[1] "Integrity and Instructional Innovation." *The Educational Forum* 30 (1): 7-16; November 1965.

[2] "Recipe for Control by the Few." *The Educational Forum* 30 (3): 263-69; March 1966.

I quite agree with Professor Hand that many of the proposals and actions instigated by the New Establishment were not only legally nonresponsible, but perhaps educationally irresponsible as well. An ill-concealed spirit of elitism, intellectual snobbery, an impatience with the limitations of the common man, ample funds wherewith to command academic talent, and a heady feeling of power, all combined to produce educational schemes that might or might not survive close scrutiny. In any event, one did not get much chance or time to scrutinize them. Instead, elaborate and often spectacular demonstrations and acclaim by the public press were supposed to be accepted in lieu of careful testing and evaluation.

However, much as I share some of the concerns which prompted his criticisms, I cannot share Professor Hand's apparent conclusion that the only valid basis for educational decisions lies in the will of the people as expressed by the school board members or members of the legislature and Congress.

Granted that today's parents have made good schools part of whatever formula they have adopted for the good life, it still does not follow that the hunches of the average man, even of a majority of them, are a reliable basis for making educational decisions, except at the most general level of policy. When one takes into account the pressures which a highly complex, interdependent, bureaucratically-organized society exerts on us all; when so many of our doings are collectivized and institutionalized, there are few domains of any importance in which individual choices are likely to be either rational or decisive.

For the situation to be otherwise all of our educable people would have to be given far more genuinely general education than they now receive—even in college. About the only room left for popular choice is in those areas and at those levels of action where the choice cannot be made on the basis of expertise. In matters educational about all the common man can still choose freely and competently is the kind of success route he will follow or the kind of life style he will settle for. This decision having been made, the schooling needed for it is probably nothing the common man even wishes to choose, any more than he wishes to choose the therapy for his ailments. And lest we be tempted to smugness and snobbery, let us not forget that outside of our vocational speciality we are all common men, equally at the mercy of the specialist and humiliatingly dependent on institutionalized agencies to minister to our most elemental needs. Anyone who wishes to dispute this should recall the last time the electric power failed for any length of time.

If in the educational enterprise there are matters on which there

is a ground for one opinion being judged better than another, then there is a rational basis for decision. Of course, there may be matters on which there are no criteria of this sort, or we may not know what they are. In such situations the will of those concerned is the only proper criterion. Furthermore, a society can, I suppose, choose not to make its decisions on rational grounds. In such situations argument would be useless, so I shall leave them out of this account.

Need for a Unifying Principle

Our task, it seems to me, is to explore the kinds of knowledge or expertise needed to justify educational innovation, especially curriculum innovation, rather than to abandon expertise as a basis for decision. The New Establishment is long on expertise and respects it; unfortunately it rejects the professional expertise of the Old Establishment. If I interpret the thrust of its argument correctly, the New Establishment is saying that one should depend on the expertise of academic subject matter specialists for curriculum construction and upon non-educationalists for innovation, and evaluation.

I believe this attitude does little credit to the intellectual acumen attributed to the New Establishmentarians. For it seems obvious that a curriculum is not simply a congery of subjects in a catalog or program of studies. Indeed, the very distinctions between the disciplines, which academicians so jealously and properly guard lest their content be diluted, should alert them to the need for some unifying principle for organizing instruction, a principle which cannot simply be taken over from European secondary schools, or from so-called liberal arts colleges or industry and applied to education.

This unifying principle is a theory of education which rationally weaves together the objectives of the culture, life outcomes, school outcomes, a curriculum design that promises to achieve the outcomes, the training of teachers, specialists, and administrators, as well as the facilities and resources by means of which the whole enterprise goes or falters. The consistency of this theory, its inclusiveness and sophistication, its faithfulness to the demands of the culture, to social reality, to the facts of pedagogical life constitute criteria for curriculum decisions that transcend Establishments. It is, I shall argue, the only rationally defensible basis for educational decisions.

I shall try to indicate how the lack of such a theory has caused well-intentioned non-educationists and anti-educationists to make proposals and adopt tactics that have stirred up what must seem to them to be

willful obstructionism, and inexcusable foot-dragging on the part of school people. I dare say some of these suspicions are justified; it would be miraculous if, in an enterprise as large as the public schools, some were not. But by and large, they are *not* justified.

Consider, for example, what happens when a school system is confronted with a proposal to adopt a new mathematics or physics curriculum. Let us assume that the proposal already has a good deal of publicity behind it, and that some influential parents have already urged the school privately or not so privately to try it. On what grounds does one divert—and often it does mean diversion—funds from other allocations to make the proposed change? The proponents of the new course are content to rest their claims on the superiority of the content, viz., that it is "good" mathematics or physics, and "better" mathematics or physics than that now being taught. As to other values which the proposed innovation would facilitate or jeopardize, the proponents say little and apparently care less.

One would feel better about it all, if one could be reasonably confident that the school's administrators had better knowledge of these consequences, but there is little ground for such confidence because the total curriculum is a hodgepodge. Aside from providing courses demanded for college entrance, the curricula of American schools have about as much design as Grandma's attic or Mother's handbag. Each item at one time, no doubt, had its cause and reasons, but having settled itself in the curriculum, its squatter's rights are virtually perpetual. The administration's resistance, therefore, if it exists, arises from considerations of expediency, comfort, or even survival, rather than from reasoned judgments about the merits of the innovation.

The administrator and staff have no simple way of judging how good the proposal is—even on its own claims. There is no impartial *Consumer's Guide* to tell them, nor do many school systems have a testing laboratory of their own. Under analogous circumstances, no hospital would adopt a new drug for general use, whereas schools often do jump on whatever bandwagon happens to be playing the loudest tune.

It may be urged at this juncture that the school system make a pilot adoption—perhaps a class or two—if one can find a few teachers willing to take part in the experiment. Let us suppose this is done and that the results are decisive enough to favor general adoption. This means training the rest of the staff through institutes, special courses, and other improvisations. There is not the slightest assurance that teachers so laboriously refurbished will be adequate to the task, or that there will be trained replacements should they leave the system, as many of them are

sure to do once the word of their success gets around; and the promoters of the innovations see to it that word does get around.

For there is no systematic way at the present time of introducing these innovations into a teacher education program. The personnel responsible for the educating of teachers are as a rule not the ones responsible for the innovation, for they are the educationists who have been bypassed by the innovators. The professor of education in colleges of education is still the strategic figure in teacher education, and while he can be bypassed now and then by institutes and in-service improvisations, the great stream of teachers will not be affected by these loopings around the standard curricula for teacher preparation.

Not infrequently the same forces and agencies that produced the new curricula which, in turn, created demands for higher qualifications of teachers also spent much money and effort to undermine teacher education curricula and institutions. I shall return to this point later, but for the moment it is necessary to note that the innovators are grossly unrealistic in their estimates as to how long it takes to effect a nationwide change in a teaching or curriculum design. A curriculum director who undertakes to alter any considerable part of his program under these circumstances must like to live dangerously; understandably, some do not.

Well, perhaps not too dangerously after all. Suppose the whole venture collapses, or that it goes awry. Who will know? Who can ever fix the responsibility for its failure? Where are the brave new educational innovations of yesteryear? Second and third thoughts are finding their way into the arena of discussions about many innovations that no one dared question several years ago. For example, the School Mathematics Study Group which pioneered one of the new mathematics programs, is, according to its director, E. G. Begle, planning to design a new sequential curriculum for grades 7-12 for reasons that I shall touch on presently.[3] Such revision is inevitable and does not present any argument against innovation as such. However, for every mistake a price is paid, and who pays the price when an educational trial turns out to be an error? Who knows? All is dissolved in the sea of innumerable undetermined variables.

Perhaps we ought to tarry a bit on the resistance to innovation by teachers—alleged or real. The newer the proposed innovation, the more it departs from the habits already formed, the more it will take of the teacher's time for preparation, and innovators just do not realize how

[3] A letter to *Science* 151 (3711): 632; February 11, 1966.

different the task of a public school teacher is from that of a college professor. The innovators are likely to intone piously that this disruption of routine is good for the teacher: the teacher, they believe, should be excited, just as the pupils will be excited if the innovation is brought about.

(It is significant of something or other that to cause excitement is apparently the highest praise one can accord anything in these days.

(Automobiles are exciting, fashions are exciting, actresses are exciting, novels, meals, wines, and educational innovations are exciting. So also presumably are murders, large-scale robberies, and clever embezzlements, not to speak of wars. In a previous decade the fashionable superlatives were "terrific," "fantastic," and "fabulous."

(Is it perhaps the case that our dominant educational goal is to relieve boredom; to dispel the national ennui rather than to achieve some positive vision of the good life? Is this a possible explanation for the emphasis on acceleration, creativity, divergent thinking, on learning as the playing of logical games or solving intellectual puzzles? The Classic tradition also emphasized intellectual and creative activity as the highest human accomplishment, but it never made the mistake of dispensing with the practical virtues for talented people who were blessed with the capacities for the intellectual ones. A high IQ would never have been accepted as an excuse from the requirements of citizenship and self-development in every human capacity. But such distortion of the intellectual ideal is understandable if human reason is valued only as the supporter of industrial and military technology, or as a relief from boredom. Excitement may well be an accompaniment of high-grade intellectual activity but it is not the criterion for it.)

Evaluation and Innovation

Will a program of assessment or evaluation of the new curricula give us the equivalent of a *Consumer's Guide* that would obviate some of the difficulties that a school system encounters when confronted with the need to make a decision on a curriculum proposal? In form, of course, it would, but to achieve a usefulness comparable to that of such a guide would call for as great an innovation in the habits of the evaluators as in the schools.

1. One finds, for example, a disinclination on the part of evaluators to consider any objective other than the one internal to the materials to be tested. To do so makes the evaluation procedure fuzzy, to be sure, but in a total design of education, not a mere conglomerate, side

affects are important. Is this a good mathematics course? Good for what and for whom? For general education or special? For the interpretive or the applicative use of schooling? It is heartening therefore to have the following questions being raised by the SMSG group: "Are there trends evident in the way mathematics is being used today in our society that should be taken into account in this long-range planning? . . . Are these things now emphasized in school mathematics or in the application of mathematics?" [4]

2. One looks in vain for any systematic discussion as to the demands of citizenship, of vocation, of living with some degree of sanity and satisfaction in the kind of world we may have when these children finish school. That pupils will learn more mathematics or biology or whatever else is in the package is the only factor that proponents and evaluators seem to be concerned with. As for the consumer—the school principal, the teacher, the parent—the promise that children will be excited by the new package is supposed to answer all possible pedagogical objections.

3. One looks in vain even for an explication of the relationship of the innovation proposal to the total domain of knowledge that is supposed to be probed by the school experience. How will the new biology course be related to the social studies? How will it be introduced so that it is relevant for solving or even understanding molar social problems? And what has this biology course to do with what is going on in the literature and art courses?

4. Finally, one looks in vain for some systematic consideration as to the learning-teaching style or strategy that is or is not appropriate for the content in the new curriculum or course. For example, is it so obvious that in high school economics, sociology, anthropology, geology, astronomy, political science must be taught as separate subjects? Or is it so obvious if problem solving is taught most naturally through an activity approach, that one must also teach physics and biology via that approach? And what about the appreciative components of the curriculum? Are they best taught as subjects or as activities or in some third or fourth way?

These issues are not to be dismissed as simply problems of method, because curriculum is more than course content, more than a title in a catalog, even though it is far less than the total experience of the pupil at school. Curriculum connotes both the content of instruction and the way the materials are organized for instruction. Learning-

[4] *Ibid.*

teaching style has a great deal to do with this organization, and very often the resistance to an innovation is based simply on the fact that it will call on the teacher to adopt a wholly unfamiliar organization of what may be familiar content. It entails a new way of thinking and maneuvering, and college professors should be the last to throw stones when it comes to resisting change in pedagogical habits.

If I have been at all true to the facts, we can agree that we are far from having a *Consumer's Guide* for curriculum directors and supervisors, PTA's, administrators, and school boards. But in such a situation are the only alternatives a set of ratings issued by the New Establishment or the counting of noses on the School Board? Is the weighing of community pressures the proper basis for decision? Are even those who participate in such decision making happy with it? They would, I am convinced, prefer an expert's judgment to their own—if only there were credible experts. The American people, far from resenting the leadership of educationists, resent the lack of it; they resent, so to speak, paying doctor's fees to physicians who leave the diagnosis and therapy up to the patient. The Old Establishment, far from foisting leadership on the public, has refused to lead; instead it has substituted sensitivity to group pressure for leadership.

Why then is the Old Establishment so unready with leadership? Why has it lost confidence in its own expertise? Why has it allowed the New Establishment to paint its public image as a huge body of second-rate minds working for fourth-rate salaries? Partly, of course, because it is partially true; but why must it be true, even in part, and what could remedy it?

I believe there are two lacks which account for the breakdown of leadership in the Old Establishment: lack of interest in a unified theory of education and lack of a professionalized staff of teachers. These two factors may really amount to saying the same thing in two ways.

1. To say that a unified theory of education is lacking is not the same as saying that we have no theories, experiments, studies, and the like. On the contrary, much of this study is useless because there is no logically consistent system of educational ideas by which it can be organized. Nor does the lack of a unified theory mean that educationists have no goals or sense of direction. On the contrary, the very variety and plenitude of good things that schools want to accomplish for their heterogeneous clienteles disperse their efforts into rivulets of superficiality.

A unified theory of education means taking into account the following factors:

a. The present and projected kinds of knowledge and personality traits required for citizenship, vocation, and self-development.

How educators think they will achieve this without serious study of the social sciences and social philosophy I cannot even guess. Educators should be sitting right now on the planning boards of industry and government so that they will be privy to what is on the drawing boards for the next decade, instead of relying on crash programs to catch up with developments of the last one. Nor is it sufficient for only the administrators to be culturally sophisticated. A teacher is helpless without a full understanding of the unseen cultural impediments that every child brings into the classroom.

Yet it is in the laps of hosts of culturally naive teachers and principals that the problems of integration and the redemption of the disadvantaged have been thrown almost without warning. Strangely, it is precisely this kind of knowledge that the New Establishment's schemes for teacher training would eliminate on the assumption that candidates would have received it in their general education at liberal arts colleges. Unfortunately this assumption is shaky on two grounds: with our elective system it cannot be assumed that all college graduates have this background, and even if they have had the courses, there is no assurance that their relevance to educational problems has been mentioned, much less studied. Even more unfortunate is the opposition to foundational studies on the part of some educationists themselves.

b. A unified theory of education must be clear about the uses of schooling. I have tried to explicate the differences among these uses elsewhere.[5] With the explosion of knowledge, mixing up the uses can lead to costly errors in curriculum and teaching strategy.

c. A unified theory must be judicious about the latest developments in learning theory and teaching technology. For example, the whole operation of a school system can be shaped by the distinction one draws between what can be done by electronics and what must be done by people. How is one to decide among the dozen or so different teaching strategies one reads about?

d. A unified theory has to provide for general and special education, for differences in ability and bent.

2. Clearly this kind of knowledge does not come in a manual where the answers are looked up in the index; a big or little book that can be put into the hands of staff and parents and school board members.

[5] Harry S. Broudy, B. Othanel Smith and Joe R. Burnett. *Democracy and Excellence in American Secondary Education.* Chicago: Rand McNally & Co., 1964.

Yet this kind of knowledge is more than a matter of hunches. That is why the existence of a professional staff of teachers, administrators, and specialists is essential to the kind of thinking that alone can give us a rational basis for educational decisions.

Yet such a professional staff is precisely what the New Establishment, willy-nilly, will not let come into being so long as it is the voice of an elite dedicated to training an elite to think *for* the common man rather than educating the common man to think for himself. In terms of teacher education, it is reflected in the doctrine: A Bachelor's degree with a major in some standard discipline plus some apprenticeship and perhaps an institute or two will suffice as preparation for teaching.

It is significant that in the recent *Report* of the Harvard Graduate School of Education this doctrine is clearly rejected in these words: "To prepare a student for teaching on the basis of one year's work, a fraction of which is devoted to apprentice teaching seems to us simply inadequate" (p. 30), and it proposes what amounts to a two and a half year program instead.[6]

The public schools would have been helped immeasurably by our philanthropic foundations, had they invested some of their money into building a model undergraduate teacher education institution that was the equivalent of an MIT in engineering. Instead, they invested heavily in schemes for reducing the formal professional training of teachers to a minimum, on the one hand, and into clever schemes for upgrading these and other inadequately prepared teachers by in-service improvisations, on the other. Neither Establishment even now realizes that if we dream and talk about a sort of schooling that calls for educative engineers and scientists and statesmen, we should not staff our schools with teachers trained as educative mechanics and a scattering of talented amateurs.

A Change Is in the Making

This is our predicament, and whether it can be remedied depends almost entirely on the willingness, readiness, and ability of the Old Establishment to develop a theoretical framework for the educative enterprise. It will depend also on whether or not it has the courage to demand a professionalized teaching corps and not to settle for less; not to be donkeys following the carrot on the stick, regardless of who is holding the stick.

[6] *The Graduate Study of Education.* Cambridge, Massachusetts: Harvard University Press, 1965.

The New Establishment is our society's response to a crisis brought on by military considerations set off by Sputnik, and to economic considerations triggered by racial disturbances and pockets of poverty that a mass production economy cannot afford. There is no denying that the American public school was not ready for the educational demands generated by these problems, but then what sectors of social institutions were? The great service of the New Establishment is not in the new curricula and other innovations, valuable as some of these are, but in forcing us to realize anew the magnitude and nature of the task facing American education.

But neither the Old nor the New Establishment is by itself equipped to cope with it. The Old Establishment is still too much dominated by the exigencies of day-to-day school keeping; its theoretical aptitudes have been blunted; the New power complex is intellectual enough, but not about the educational enterprise. Both are doomed to work and fuss and innovate, yet neither can fully exploit its own strength. There is an accumulation of devices, schemes, and hunches but no cumulation of results; one is forever starting all over again.

But a change is in the making. Administrators, colleges of education, and even some of the New Establishment's innovators are beginning to ask about a rational design for education, and a design for the preparation of professional personnel. Consideration of the larger and broader issues in education can no longer be postponed. So perhaps the retreat is halted; the next step, the positive attack on the whole problem of education, is still up to us.

WILLIAM G. HOLLISTER, M.D.

Preparing the Minds of the Future: Enhancing Ego Processes Through Curriculum Development

THE term "ego" denotes a concept of rising importance in the fields of Mental Health and Education. This word is a collective term covering the numerous executive decision-making and thinking functions of the mind. As Eli Bower amusingly describes it, "the ego is that dark mysterious tunnel between the input of perceptions into the mind and the output of thoughts and behaviors" (1). Increasingly the ego analysts, the ego psychologists and now the curriculum developers have become interested in what goes on inside that tunnel. What mysteriously different mental processes go on inside the mind? What are the processes of the ego that are instrumental in producing an integrated personality that is competent and effective?

As one wag has put it, "the male ego consists of two parts; the rationalist and the egotist." I must admit that it warms the egotistical side of my ego that the Association for Supervision and Curriculum Development has so kindly credited me with inspiring the idea of the ASCD 1966 Yearbook on *Learning and Mental Health in the School* (2). Let me assure you that the rationalistic side of my ego is fully aware that this yearbook, and the ideas it presents, really emerge from a growing and exciting new interaction between the behavioral sciences and education, and that ASCD should be credited with playing a prominent catalytic role in this transaction. One has only to review the recent yearbooks and research publications of this Association to validate this point.

I have already enjoyed the stimulation of working closely with ASCD leadership these past nine years as one by one we have brought in leading behavioral scholars to work with scholars in curriculum

development. All of us involved have been impressed that ASCD attracts to its membership the educators who enjoy thinking, innovating, and pushing forward the "growing edge" of educational methodology. Let me share with you what I believe to be the most exciting product of our interactions: a challenging new horizon of curriculum development. I call it "the double purpose curriculum."

As we educators and mental health specialists have worked together the past nine years, several of us have become increasingly convinced that the research and clinical findings in the behavioral sciences are in process of providing education with important new tools for developing the latent potential of children's minds. For years, we educators, like Columbus, have sensed that there is a new curricular world beyond the older world of substantive knowledge, a realm open to exploration. Although we have not had precise maps or measurements of the dimensions of this new world, we have had plenty of inferential evidence of its existence.

This new curricular world of which I speak is the new horizon of developing curricula that will potentiate and mature the various individual capacities of mental functioning. Let me illustrate. For years, many of our predecessors in education have espoused the thesis that the teaching of algebra and Latin somehow "trained and strengthened the mind." Behind these statements was the expressed hope that these two subjects were not only of substantive value but that somehow they also catalyzed or nurtured the development of certain intellectual processes basic to success in other mental endeavors. Indeed, looking back, many of us will remember that our contact with the complex declensions and conjugations in Latin was one of our first challenging encounters with the process of differentiation.

The history of curriculum development is not only studded with the brilliant delineations of the traditional "knowledges, skills, and attitudes" to be learned, but also with approaches we hoped would foster inductive, deductive or analytical thinking. For a long time curriculum specialists have been working toward the formulation of a new and more potent blend, namely a curriculum that not only imparts substance but also, at the same time, engenders greater cognitive and affective capacities. Today, thanks to an ever-growing volume of conceptualization and research on the ego processes by behavioral scientists, I believe we are much nearer to the achievement of this goal.

By careful utilization of these research findings, bold curricular experimentation and disciplined evaluation research, we can now design curricula that nurture and strengthen ego processes while they simul-

taneously impart content. I predict that a considerable volume of the curricular research in the immediate future will be focused on effecting and testing these "double purpose curricula," that blend, more than ever before, the transmission of heritage and knowledge with the catalyzation of both the cognitive and affective functions of the ego. This line of growth will bring us nearer to building mental health and thorough learning.

What are the emerging ideas that make this curricular blend more possible? What are some of these ego strengths that we could nourish within our present curriculum methods and content? How can we design learning experiences that will catalyze ego capacities while still maintaining sound standards of achievement? How can we create this so-called "double pay-off curriculum"? These trenchant questions are the challenges ahead of us as curriculum developers. What are some of the better cues we have available for creating such an education for the minds of the future? Some of the methods referred to are, of course, already in use to some extent. Let us not forget that we already have a goodly number of perceptive and intuitive minds at work on this problem, and I hope that what is said here reinforces their work.

Enhancing Ego Functions

In 1939, Heinz Hartmann (3) provided the stimulus for a new breakthrough in our explorations of ego functions with his book on *Ego Psychology and the Problem of Adaptation*. He moved scientific thinking beyond viewing ego functions only in terms of the development of defenses against inner impulses and the compromising of the demands of conscience, inner drives and reality. His thinking helped focus our attention on the conflict free organizing, synthesizing functions of man's ego; the functions of the ego that create man's competencies, his creativity and his unitary self. His leadership has helped us move beyond sole focus on repairing damaged personalities to the additional task of building strengths into personality.

Hartmann classified three executive organizing, thinking operations of the ego into these major functions. These are: (a) the *assimilation* functions, the various processes of perceiving, taking in and seeking out information; (b) the *differentiation* functions, the abilities to discriminate differences, and then analyze and factor out parts from wholes like the ability to break down a school system into all its operating functions and elements and then to define and develop all the abilities needed to run a school; and (c) the *integration* functions, the capacity to

recombine all these differentiated abilities and knowledges into new combinations. Through these integrative ego functions man creates his goals, his new concepts and values; he integrates a concept of self, a personality and a state of living and learning. In summary, there are three major areas of executive organizing ego functions: assimilation, differentiation and integration.

Education theory, research and practice have long concentrated on how learners take in and assimilate knowledge. Without downgrading the importance of assimilation, I would like to focus much of this paper on how educators can strengthen the differentiation and integration functions of the ego in "preparing the minds of the future."

As curriculum developers, let us first ask, "What kinds of specific ego functions could we nurture?" For sure, the information explosion will continue and we must somehow prepare the minds of the future to cope with a floodtide of knowledge that could possibly engulf us in a cognitive overload. Intellectual survival in the days to come will depend more and more, as Jerome Bruner (4) puts it, on growth in our students' abilities at grouping and encoding information so that what is known is grouped in simpler, more usable form, is categorized in ways that establish connectedness and in ways that maximize recombination and inventive regrouping of data.

Conceptualization of Categories

The ability to conceptualize categories is a basic cognitive strength that we could foster while teaching grammar, vocabulary, biology, mathematics and other subjects. Already we are teaching the classification of biological phenomena by homologous structure or by analogous function. Chemistry is loaded with opportunities to teach categorization by common elements, common derivation, qualities of relationship, and consequences of interaction. Mathematics is a royal road to the study of various types of relationships such as linear, reciprocal, parallel, geometric, and algebraic. I am sure that we already present many of the principles of categorization at widely divergent points in our present courses of study. Nevertheless, I wonder whether we identify these important tool-processes, so vital in data analysis in research or the understanding of human behavior, and whether we demonstrate their transferability to other kinds of data and problem solving situations?

I shall never forget a high school literature class I visited in which the vicissitudes of Silas Marner and his life companions were being analyzed. First, the class had listed its own criteria of maturity on the

board, and they were day-by-day matching the behaviors of the various characters in the book against these criteria. Obviously they were learning that the quality of people's performance changed in maturity level from episode to episode. They were beginning to experiment with classifying relationships and behaviors in books, plays, TV programs, and real life. At a simple level, Silas Marner was coming alive as an instrument of learning to differentiate and think about human behaviors.

I am sure there are many such opportunities to do more than we now do, to train more explicitly the capacities to cope with the current cognitive overload and the ongoing task of ordering information. We need to provide learning experiences that range over the analytic, inferential, relational and functional methods of grouping in a concerted and planful way. We perhaps should provide learning settings that not only confront the student with concrete and symbolic data but also semantic and behavioral kinds of data. Now that tests are emerging that will allow us to assess a student's levels of conceptualization and abstraction, we should be able to create a more comprehensive coverage of the various information-encoding processes of the mind and be able to test the impact of our curricular innovations.

Differentiation

The stimulating and maturing of the differentiation abilities of students is not solely a matter of training them to make finer and finer discriminations, although such perceptual training is an important part of education in art, music, chemistry and other subjects. We can go beyond this to help pupils acquire trained abilities in the techniques of data analysis and in the identification of the factors and elements involved in a process. These abilities need to be cultivated for dealing with various kinds of data; not only with the symbolic content as in mathematics but also more meaningfully with the semantic and behavioral data presented in our social science studies. For the future, it is not enough to be able to analyze essays and equations, for one must also be able to penetrate and discern the meanings (the semantics) behind symbols or behaviors.

For instance, history provides a magnificent medium for teaching how to read cues about man's behavior, to acquire the differentiation and inference making ability vital to our progress toward better human relations. Let me illustrate the range of differentiation styles that could be taught along with historical content. Any group of events in history, such as a world war can be read: First, *inductively,* as items in an

incomplete puzzle or an unfolding phenomenon. Practice in this type of analysis leads to nurturance of predictive ability, a key intellectual process that J. P. Guilford (5) stresses. Second, the same events can be read in deductive fashion, as descriptions of whole phenomena requiring factor analysis to understand. Third, in addition to these usual camera angles of approach, history can be read *as a distorted whole* filled with hidden valuable cues requiring thoughtful elimination of irrelevant elements followed by resynthesis of relevant items. Fourth, a historical event can be viewed as an exception or as an illustration of negative evidence which must be reversed in order to assess its meaning. Or fifth, a historical event can be viewed *as a product of a conflict* in which one must detect the biases involved in order to place it in perspective.

Even this rapid listing does not exhaust the various analytical and differentiation techniques that can be taught with historical content. I hope, however, that I have communicated how a social science curriculum plan can explicitly serve as a fascinating preparation for a future life in which the major input of information will most likely be subjective, incomplete, distorted or irrelevant data. Ego strengths in the differentiation area are needed for research or creative occupations. They are also prerequisite for analyzing some of the complicated human behavior problems that beset society.

Tolerance to Ambiguity and Process Thinking

Speaking of society and its problems, let us focus on another set of ego strengths needed in the minds of the future, namely the ability to tolerate ambiguity, to delay gratification (6), and to live with problems and processes requiring long-continued effort in their solution. As our cultures grow more complex, we are finding that many of the human problems we face will not respond to simple black or white solutions that can be inflated and kicked about as political footballs or slogans of hope. Some of our social problems are so complex and human variability is so great, that oversimplified solutions only create program failures and more unmet needs.

It seems to me we must step-by-step foster in the minds of the future, the intellectual and emotional strengths that will prepare them for the frustrations, the non-resolution of problems and the ambiguity of modern living. In addition to the various analytical methods just listed, I believe we could add learning experiences with a graded series of simple, then more complex problems to solve. During this process we would gradually increase the number of stimuli, slip in irrelevant

data to be detected, and then call for tailoring the solutions for various consumers. Such learning experiences would lay the foundations for the kind of process thinking and flexibility of application that the future requires.

Progression on to teaching "process problem solving" would help us move beyond oversimplified packaged solutions. To the extent that we can make visible the idea that problem solving in physics, chemistry, and human affairs is a process, requiring a chain of related responses to a sequence of cues, we will be preparing minds with the coping techniques and the affective stance required in much of modern living. While we are creatively daydreaming, let us hope that we will have parents and school board members trained to process thinking instead of single event thinking. Hopefully, such citizens would look at education less in terms of its elements, such as books, buildings, and teachers, and more in terms of a variable process to be implemented. It has been clinically demonstrated that process-oriented thinkers, as opposed to those who think mainly in terms of unitary facts or classes, use an entirely different conceptual base for their decision making.

Competence in process thinking is already being explored in fourteen school systems by the Commission on Science Education of the American Association for the Advancement of Science. Robert M. Gagne (7) recently reported on teaching processes and content used for training in observation and ordering of data. These curricula are providing opportunities in prediction, inference making, formulating hypotheses, making operational definitions, and learning how to change or control variables in a process. These are being taught as part of an effort to escalate content teaching into greater development of creativity. In recognition of the interaction of cognitive factors with affective factors, these curricula deliberately reward novel ideas, observations, definitions and solutions. They seem to be fulfilling Jerome Bruner's ideas in encouraging youth to invent an answer rather than search the literature for the solutions of others. They are doing this with the assumption that such problem solving instruction is imparting transferable intellectual processes for wider application. To me, this is direct nurturance of ego functioning.

Nurturing Ego Strengths

Before we put another layer on the doubly rich curricular cake, let us stop again to recognize that all these ego strengths and mental functions we are mentioning do have a familiar ring. I wager that some

reader, well versed in the history of education, is saying under his breath, "It has certainly taken a long time for you behavioral scientists to get around to what we educators have called for a long time 'the moral education of the young.'" Yes, there is a deceptively familiar ring to the words, but let us not overlook a signal difference in the way these findings on ego functions have emerged.

Instead of deductive delineations of the mental strengths one should acquire, these more recent identifications of the individual cognitive, affective, and motivational mental processes have emerged from clinical investigations or personality factor studies. These ego capacities have been found in effective competent people, individuals with specific segmental defects, and in the average populations. Out of the studies of men like Piaget (8), Guilford (9), and Cattell (10), as well as a host of others, is emerging evidence on the discrete existence of certain abilities, their time of emergence in the personality, and the manner in which these capacities mature in response to environmental stimulation. More than ever we have conceptual and testing handles on these functions to guide a more definitive educational effort.

Lest one think that all of the specific strengths to be cultivated are all intellectual processes, let us balance this brief exploration by a discussion of ego strengths that are visibly a blend of emotional and intellectual capacities. We should heed Barbara Biber's (11) words that, "standards of educational excellence must include an operational and instructional awareness of the associated emotional processes in learning." The recent writings of Nevitt Sanford (12) and Eli M. Bower (1; 2) and others have helped us to see that the cognitive and affective aspects of mental functioning are inextricably intertwined. Our symbolic dichotomization of them in discussion and teaching has led to some serious distortions. Even Sigmund Freud's (13) earlier considerations of the thinking process clearly related intellectual functioning to sublimation of impulses, delay in gratification and rechanneling of energies away from pleasure to the reality tasks of mastering the environment. From the clinical studies of psychoanalysis has come abundant evidence that intellectual competence is undermined by anxiety, and that ego strengths are diluted by narcissism or masochism (15). Therapeutic, developmental and educational efforts to provide mechanisms to cope with stresses, solve problems and effect resolution of conflicts are better understood as combined cognitive and affective operations.

Now there is growing recognition that there are ego strengths such as tension tolerance, tolerance of moderate guilt, capacity for empathy, and the ability to enter into mutually enhancing relationships that are

blends of important intellectual and emotional abilities. The capacities of the individual to obtain reasonable enjoyment, enforce reasonable prohibitions of conscience, formulate and pursue aspirations, as well as the ability to forge and maintain a favorable self-image are seen as blended cognitive-affective strength. Glover (14), Karush (15) and others in psychoanalysis have explored means of orderly assessment of the adaptive balances attained through these ego strengths. Other investigators have been searching for the childhood determinants of certain emotional and intellectual capacities. Slater (16) reports that rigid intolerant parents (and perhaps this might apply to teachers as well) cripple ego development while warmhearted, supportive parents tend to produce buoyant, spontaneous, gregarious children.

Elizabeth Drews (17) at Michigan State has conducted curricular experiments using the identification mechanism as a way of building a broader self-image and diversifying the vocational choice potentials of gifted children. Pauline Sears (18), with her studies of the influence of classroom conditions on strengths and achievement in children, has shown that for average children, the emotional meaning of liking (both ways) between student peers, as well as between teacher and pupil, is a key ingredient in the ego process of developing an identity and self-image. The same factors correlate with these children's attaining achievement and the development of an industrious pattern of classroom working. This emotional relationship base for learning and behaving was found to be less important in the achievement and work patterns of superior children.

Dr. Sears also reinforces the lore so many sensitive teachers have rediscovered, that rewarding children by personal interest and praise for personality traits, in place of rewarding only by work evaluation, produces children who perform and score higher in creativity dimensions. I cite these examples to illustrate the interlock between the emotional and cognitive factors that lies behind such mental capabilities as interest in achievement, commitment to work, originality, evaluation ability, adaptive flexibility, associational fluency, persistence, frustration tolerance, and elaborational fluency. These are mental strengths children show that can be reinforced by the interaction style of the teacher and the classroom. Sears' findings support a reservoir of clinical experience that there are many children who depend on the emotional and social climate of the school for the affective resources essential to their willingness and ability to learn, especially children of average intelligence scores. Here again, we curriculum developers are confronted with the challenge, "How can we design classroom experiences that will foster these blends

of the emotional, motivational, and cognitive?" Better yet, "How can we actualize teachers whose personal cognitive-affective style catalyzes children's ego potential?"

Integration Functions

Perhaps the highest level ego processes to strengthen, to use Heinz Hartmann's classification again, are those functions he called "the integrative functions," or the synthetic functions of the ego. The culmination point of man's abilities to perceive, assimilate, order, differentiate and symbolize is his ability to recombine these symbolized experiences into new ideas, new concepts, as well as goals, values, and new behaviors. The title of the ASCD 1962 Yearbook on *Perceiving, Behaving, Becoming* (19) has beautifully captured the essence of this sequence from input to an output that has been mediated and elaborated by the integrative capacities of the ego.

Just as the arm of an infant goes through a process of gradual differentiation from gross general movements down to finer and more discrete muscle movements, so our minds begin to perceive, select, discriminate, analyze and label our experiential input down into differentiated categorized entities. Then, just as the human arm can come to recombine its individual independent muscle movements into swinging a tennis racket or playing a piano, so our mind appears to acquire the capacity to recombine differentiated entities and thus to integrate concepts, processes, purposes, ideals, and to evolve behavior styles. Strengthening these high level cognitive and affective capacities in the course of teaching content becomes a major opportunity not to be overlooked.

Through our current widespread curricular experimentations for the benefit of gifted children, we are learning more and more how to foster divergent thinking, innovation and creativity. The curricular writings and studies of men like Calvin Taylor (20), Paul Torrance (21), and many others, are already depicting ways to nurture these integrative ego capacities. Through other streams of research we are documenting our long awareness that children integrate characteristic learning styles. According to Kagan (22), some children who approach learning tasks with an analytic style appear to achieve more success in our present curricula than those who adopt a rational style. At San Francisco State College, Hilda Taba (23) is studying the step-by-step process of how various children integrate their learnings and she is translating this analysis into the specifics of the teaching role.

In addition to these endeavors to understand the integration of learning styles, the work of Piaget, Erikson (24) and Havighurst (25) has focused attention on certain important integrations of the self through what are called key developmental tasks. There is experimentation to ascertain what kinds of interpersonal encounters and what kinds of learning experiences expedite the development of such important personality integrations as "basic trust," autonomy, self-identity and one's self-image. Some of Piaget's contributions, as seen through his translators such as the Robinsons (26), Lunzer (27), or Flavell (28), are undergoing direct utilization in experimental school programs that seek to detect and nurture certain intellective processes by learning interventions given at the right time and sequence. Flavell suggests fostering "rationality, objectivity and a multi-perspective view" by pitting one student's thoughts against those of another and increasing peer-to-peer feedback. Similarly, Jan Smedslund (29) of Norway suggests that constructing learning experiences which constantly confront the student with alternatives will provoke him to pause, compare and often force him to integrate new solutions. All of these approaches represent germinative ideas about how to catalyze integrative capacities.

When J. P. Guilford (5; 30) projected his model of some 120 different capacities of the human intellect, he predicted that many of these separate factors might be manifest in clusters or patterns of abilities. Using different methods of factor analysis, Cattell and his colleagues (10) are identifying, assessing and following the lifetime development of certain clusters of functioning that are really ego styles. These are basic patterns of behavior that are products of the integrative functions of the ego. Cattell has identified and labeled such ego styles as, "hypomanic smartness, executive factors, critical practicality, social willingness, and Corticulertia," (a name for nervous alert reactivity). Other styles such as "wary realistic, exuberance, dour pessimism" have been detected by studies of the patterns manifest in individuals.

Perhaps more exciting are the research efforts in ascertaining what kinds of family and experimental settings produce these styles of ego functioning. Already Cattell has evidence that the capacities and noncapacities that make up what he calls "hypomanic smartness" emerge from homes that stress success with little moral restraint as to how it is attained. There is also a high level of competition and mutual criticism in such homes. These people seem to be intellectual without depth and to show a high pressure to complete tasks and make decisions. With the further development of this kind of behavioral research, the teacher of the future, I am certain, will be provided with more specific profiles

of the existing and latent ego strengths of each pupil. Then we will have more information about the learning styles and behavioral styles of our students to guide us in the curricular task of assisting each pupil to higher competence. Such developments will place education right in the middle of fostering the integrations of new mental and behavioral abilities.

A review of the writings of Cattell, Guilford, Taylor and others who are studying the competencies that individuals can integrate, brings us, as curriculum developers, face-to-face with a wide range of strengths that might be fostered. For instance, imagine yourself as a member of a curriculum group challenged to design learning experiences to build such abilities as: exactness, problem penetration, practicality testing, associational fluency, persistence, confidence, reflective capacity, non-distractibility, relational skill, computational ability, sensitivity to feelings, or communication ability.

Such a list sounds like a compendium of desirable qualities but now it is much more than that. It is a partial list of qualities of performance that have been identified as operating in individuals, behaviors that have been analyzed and differentiated into testable factors, and on which there is growing evidence that these have been influenced, if not catalyzed, by interactional experience. It is true that we in curriculum development have long pursued some of these goals, yet I wonder if we have ever elevated these goals to become the object of a twelve-grade, concerted and interlocked curricular effort which would add up to planned potentiation of the whole range of individual mental abilities.

The Mentally Healthy Person

As we seek to educate minds for the future, we will be moving far beyond our usual knowledge, skill, and attitudinal goals to specific nurturing of many individual ego strengths. Much of this effort will rest on the as-yet-unproven assumption that such ego strengths can become transferable competencies operative and useful in other life tasks. We must assume, on the basis of our past experience with the distribution of other psycho-biological capacities, that these potentials of the human mind do not exist in equal strength in every pupil. We will therefore be dependent on additional behavioral science research to further the precision of tools which can detect potential and its time of emergence as well as tests of the growth and differentiation of capacities under the impact of the curricular experiences we design. We in education must proceed with the imaginative creation and field testing of our learning

and developmental interventions, learn how to standardize and replicate them, and learn how to individualize them. Both educators and the scientists of human behavior have a challenging research and development task ahead.

As we increasingly explore the building of these "double purpose" curricula, we will have an important ethical responsibility to keep in mind. We must carefully communicate, lest we be misunderstood, that we do not seek to mold or control our learners. Instead we seek to liberate unused potential, nurture capacity to achieve, provide realistic opportunities for self-directed choice making, as well as catalyze each student's abilities to integrate his own goals, values, life styles and relatedness. Our goal is to enable each individual, as Robert White (31) has put it, to "turn his energies toward effectance and competence."

Such a curricular philosophy is in part a response to the challenge that Jerome Bruner gave in 1963 at the Association for Supervision and Curriculum Development convention in St. Louis. At that time he called for a theory of instruction to supplement learning theory (4). Hopefully the objectives of a "double curriculum," that imparts heritage and knowledge while it actualizes mental functioning, clearly establish some goals and imply some of the methods for such a theory of instruction.

When this task of potentiating children's ego competencies through educational procedures becomes accepted and implemented, a new chapter in the history of mental health will be written. In this new chapter, Education will become, more incisively, a prime instrumentality in actualizing the mentally healthy person. The interdependent interaction cycle between Education and the Behavioral Sciences will come full circle. Education, in response to behavioral science contributions that have revolutionized its operations, will then be increasingly contributing realizations of Mental Health's fondest goal, the creation of the mentally healthy individual.

In conclusion, I would like to challenge the reader to implement the high importance and the deeper meaning behind the ASCD 1966 Yearbook . . . to demonstrate that we are dedicated not only to mental health as a basis for better learning but also dedicated to a kind of learning that will better mental health.

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RONALD LIPPITT

Processes of Curriculum Change

UNTIL four or five years ago I thought of myself as in the category of social psychologist or child development specialist. But during the past few years I have become one of the group of behavioral scientists who have decided that the improvement of education work has top priority in society and I have attempted to join in the exciting, collaborative efforts that are involved in curriculum development and the enrichment of the child's learning experience.

I cannot imagine anything more exciting today than to be thinking about the theory and techniques of improving the curriculum in order to improve the learning experiences of children and youth. Let us start by identifying, as I do rather frequently in my own mind, some of the facets of the phenomenon, or the phenomena, of curriculum change by just a series of brief quotes that I have heard in recent months and added to my notes of quotations.

First, two or three quotes from colleagues at the federal level:

> —Everyone is jumping on the bandwagon of educational change, but I don't see much effort to distinguish between fads and quality in education.
>
> —Well we certainly want to avoid national curriculum, but the pressure seems to be for total packages instead of local designs in innovation.
>
> —I get the feeling of new money stimulating much activity, but not so much education.

Second, from some colleagues at the level of state professional society and state department of education:

> —We've got to hire a lot more staff in a hurry. I am not clear really how it is going to help any children learn better.
>
> —A lot of new things are getting started, but I don't see people being trained to do them.

—From the teachers I've talked with I get the impression a lot of this new curriculum is over the honeymoon stage. A lot of teachers are beginning to ask, "What's better about it?"

Third, a few quotes from the school system level—colleagues who are curriculum coordinators or assistant superintendents of instruction:

—What can we throw out to make room for these new things?

—I just can't keep track of all the new things coming out.

—My teachers want definite sequences. How do you decide what is a good sequence to put together?

—I want our teachers to develop their own. That's better education for them and for the students, I think.

—Somebody ought to do a complete K-12 package, so we can adopt one plan.

Fourth, here are a few from colleagues who are in the publishing business:

—It musn't be too different or they won't see where it fits in.

—With this inquiry emphasis, will there be more consumable pupil material for sale?

—Our new materials take into account racial integration, central city children, but they are still good for the suburban children too.

—We've got to give them a total package; it is so much easier to sell.

—Do we have to develop separate material for each discipline or will some of you college fellows get together?

And fifth, here are a few quotes from classroom teachers:

—If I don't have something new to do each year now, I get the feeling they think I'm not keeping up.

—I am using the new curriculum. It's not right for all my children, but I guess it's better than the old one.

—The children always like something different I think.

—I don't know whether the new curriculum is really working or not. Will the tests be changed so they won't be penalized?

—Are we too far ahead do you think? This new inquiry emphasis seems important, but I haven't been trained for it and I am not so sure about trying it.

Meanwhile back at the desk there is the child—the young ones who are growing up in our midst, and because of whom we are charged to help make the growing up process a significant experience, with conse-

quent payoff for the community and the country. Here is an almost verbatim note written last week during the class period in which curriculum change efforts were actively under way in this classroom.

> Dear : (This was a friend who was absent that day and who was being written to by this young person during this particular class period. This happened to be a junior high school by the way.)
>
> Well here I am in class. Bore, bore! I suppose not really that bad though. I think Dick likes Mary. He's sitting next to her over there and I have been watching him. He acts like he did when he liked me. Don't say anything though if you talk to him. Sarah is looking sad again. She still feels out. Lana is wearing that cute, bright yellow outfit again. Darrell is making me sick. He is staring at me. He bugs me. Mrs. is a great big so and so (Choose your own words please.). It is now 11:07 and 35 seconds and nobody has done anything interesting so far, so you haven't missed a thing today. We are studying the unit on . Perry is being bright and funny as usual. Two of the ninth graders (these are olders) Frank and Clem, just walked by from science. They look keen—grown up and stuff like that. It's now 11:14 and 30 seconds. Education marches on. See you tomorrow.

Every day, almost every hour, the young person hears the medley of adult voices with would-be helpful messages: teachers, parents, club leaders, lessons, drugstore proprietors, TV programs. On the whole the child experiences little dialogue with this barrage of voices and media. This to me is the key challenge of our efforts at curriculum change—more active dialogue between grownups and young ones around significant learning tasks to develop their potentialities to challenge the development of their competence, to create attitudes toward learning.

Phases of the Curriculum Change Process

Let us keep these confronting phenomena in mind as we think about the process of curriculum change. I have found it helpful to identify six phases of the curriculum change process. Let us point these out briefly, reflect on a few key aspects of each phase and then close by focusing on the role of the curriculum change agent in the school system.

The six phases, just for identification, I think of as follows:

1. *New resources development phase*—which may, of course, be in a Research and Development Center or it may be the work of a team in a school system or it may be the creative efforts of a single teacher

2. *New resources distribution*—making available for potential adoption what has been created as a curriculum resource

3. *New resources search*—the efforts at retrieval, to find out what is available and where it is, how to get hold of it and how to use it

4. *New resources adoption*—which includes various types of efforts to adopt and adapt

5. *New resources presentation*—at the level of the classroom—providing opportunity for children to have new learning experiences through using new curriculum materials and opportunities

6. *New resources utilization*—we recognize that a large proportion of learning opportunities are not utilized. Many students in class are being offered new curriculum materials, but clearly are not very actively utilizing these.

I would like to use these six phrases now as a framework to comment on the process of curriculum change.

New Resources Utilization

Let us start at the end of the process chain with student learning activity, with the transactions between the student and the teacher or other resources. In other words, let us look at the curriculum payoff question first, the resource utilization process.

The decisions the students make about commitment to and involvement in the process of using new curriculum resources, actually reflecting on and using new concepts, putting energy into inquiry, etc., are the most crucial acts in the process of curriculum change, for two reasons. First, because active high-quality student learning is the end objective of this total curriculum change process. And second, because the lack of favorable student response is feedback to the teacher who will actually decide on the basis of the feedback from the learners, how and how much to continue to use new curriculum resources.

So it is crucial to identify what are the critical determinants of the student utilization response. In brief summary, we can divide these determinants into *internal* and *external supports* for active motivated learning by the young ones. Let us look for a moment at some of the inner supports for utilization efforts by the young people:

First, I think of the degree to which the student has a perception of relevance of the learning opportunity relevant to his or her own world of meanings and values and interests and goals and curiosities. The curriculum materials and teacher who do not continually lead the learner into exploration of relevance, of connecting the new to what is already of importance—not necessarily to what is already known, but

what is already important—is doomed to failure or at least he will support the many private letter writing programs of active inquiry in other directions than those hoped for by the teacher. I find most curriculum materials strikingly lacking in support for relevance inquiry.

A second basic inner support for utilization is the support or non-support that comes from the self-evaluation of competence that results from successful engagement with the learning activity. One teacher, as we were talking about this recently said, "Come to think of it, you know I always mark five wrong; I never say ten right." The feedback is always to a high degree about mistakes, about failure. In one study, there was a ratio of about ten to one, ten feedbacks of failure to one feedback of success. And typically there is also the lack of pupils' own goals for achievement in terms of which to evaluate self, and to achieve a sense of competence. The decision-making and goal-setting research—industry would suggest that this is one of the most crucial consequences—emphasizes the internalized, self-accepted goals which serve as a basis for being able to give oneself a self-evaluation of success and competence.

A third inner support for utilization effort is the achievement of skills and commitment to the learner-role as an "occupational" commitment. Students are occupationally *learners*. Their key identity, along with other personal aspects of identity, must be that of a commitment to the role of learner.

I have been amazed, in various laboratories with high school young people and with college students, to have so many of them at such a late date arrive at the discovery that their major competence need, their most important commitment, is to *learning* as a responsibility, as a role to be learned, to be achieved. One sophomore the other day said to me, "You know I never faced it that way before; I never realized that since the first grade my major job has been *learning* and I never accepted it as a job at all. I never saw it as a job." The tragedy, it seems to me, is the lack of curriculum units, of activities focused on the substantive content of learning how to learn. I think of a third grade unit on "How To Learn from Grownups" which has given very exciting help to young people on learning the technical skills and identity of becoming a learner and on using adults as resources. Or I think of the unit on "Being and Becoming," in which the major focus of the unit is inquiry and exploration into the causal connection between what I am and am doing today and what I am becoming.

A fourth kind of inner support for utilization of learning opportunity is the motivational support that comes from the experience of *fun* in learning. This is fun that comes from active search, from achieving closure

in action instead of passive cognitive closure: the internationalization of really exciting learnings that comes through involvement of the whole person, the repertoire of psychological processes not only of cognition, but of affect, of valuing, of action skills. The involvement of the total person, we have come to learn in recent years, is related to the source of motivation, to want to achieve, to want to inquire further.

Let us turn briefly now to the *external supports* for making utilization efforts to use curriculum opportunities. Let us summarize quickly what I think are six of the key supports or barriers to active commitment and involvement in learning activity.

First there are all those supports or lack of supports coming from the learning group of peers. Every classroom group has a variety of peer norms or standards about such things as how active to be in interaction with the teacher, how much energy and effort to put out in extra homework. In a fairly substantial set of classrooms from second grade to junior high, we found that the majority of children in a classroom perceived that the majority of the other children in that classroom are against too active, eager collaboration with the teacher. However, on personal, private inventories the youngsters also filled out how they personally felt. The majority were in favor of more active involvement and commitment, but felt that the normative pressures of the majority were against it. There had never been dialogue and never any sharing of data until these data were put on the board for them to look at. This provided a great surprise. They were maintaining for themselves a state of what the sociologist would call "pluralistic ignorance" about the way they thought about these particular matters of educational involvement and commitment.

Another interesting finding is that for a significant proportion of children in a sentence completion study, the meaning of helping each other in the classroom is *cheating*. So the whole range of possibilities of providing assistance through interpersonal support in learning activities becomes a rather difficult problem if this is the kind of meaning we have been getting across as being tied up with *helping*. There is the whole area of subgroups for inquiry. I do not know the origin of the peculiar idea that a classroom group of twenty-five, thirty, or thirty-five can really function successfully as a totality, as the major learning group. We have learned enough now from group research to know that the total group does not provide the kind of support that is needed.

Then there are the types of inhibitions to commitment to learning tasks that come from smoldering interpersonal peer-group problems. When we have matched children on I.Q., but with some of them from

the nonaccepted part of the classroom structure and others from the accepted part of the classroom structure, we find significant underutilization of intelligence on the part of those who are in the nonaccepted or isolated part of the peer structure. And teachers have not typically been coping with classroom process as a basic part of releasing and supporting the learning of the pupils in their room.

Let us move from the peer group to older peers, to the older children in the class, in the school culture, to sixth graders for third graders, to high school youngsters for those of junior high school age. The evidence certainly is that in many ways older children provide models for many of the attitudes and values, the value postures of the young ones—these include attitudes toward school, toward teachers, toward schoolwork. It has been amazing to see what happens in some of the classroom cross-age programs, in which older youngsters, sixth graders, for example, are recruited and trained to be helpers in the first and second grade, or high school youngsters work in junior high or the junior high youngsters work in elementary school. There is great value in this kind of motivational support of the younger children from finding older pupils taking a posture that learning is exciting and important. This is particularly true for those young alienated ones for whom adults are a bit of a problem to deal with and for whom the older young ones can be the linkers-to-the-older-generation by their attitudes and helping procedures. So the older peer culture, in terms of socialization of the young, and in terms of being bearers of attitudes toward education is a very critical group.

Third, as external supports, are the teachers. One of the interesting problems we keep running into is the kind of feeling that teachers so often have that there is a need to keep control of the total classroom group. This attitude leads to resistance to subgrouping and leads to resistance to sharing leadership with the peer leaders in the classroom group. When teachers achieve the concept of seeing themselves as managers of the learning process instead of being the exclusive source of all the learning, then great and exciting things begin to happen as external supports for motivation to learn.

A fourth type of external support is the great unused resource of the other adults in the community, what we have come to call the educational community. Then there are the youth workers of many kinds who continuously give consciously or unconsciously messages to the young ones about the significance of school, of commitment to learning. We have really not done much about getting their collaboration or involvement in supporting the learning posture of the young.

Then there are the parents and the older siblings at home. In all of the interview studies we have made of the significant adults in a community who are determining what the programs of the community are for the socializing of the young, including the school and the courts and the therapeutic agencies and the churches, etc., there is unanimously an attribution that parents are the major influence on the way children grow up and the attitudes and values they develop. Yet none of these agencies has ever given priority to an active program of in-service training for parents on how to support the learner role and learning activities of their young ones. We do find as we compare young ones at school who are underutilizing their capacity, as compared with those who are utilizing it effectively, that there are great differences in their perceptions of the lack of support or the type of support at home as this relates to the learning activity at school.

A sixth kind of support would be that of the curriculum materials themselves. Do these curriculum materials represent didactic presentations or supports for inquiry? Do they stimulate a search or do they take a posture of providing the answer? Do they attempt to provide a comprehensive set of resources or do they represent a springboard and a referral to other resources also? Is there in the materials direct contact with basic resource materials or are these all condensed abstractions? Recently I dropped in on a group of students who had been doing an inquiry into, in this case, decision making. After they had worked on their inquiry activities they were able to turn on a record player that was in the unit and listen to a recording by two or three scientists who had also been studying decision making. The students compared notes with the accounts by the scientists on the things they discovered, thus making use of specialized resource persons.

These are some of the crucial supports that, I think, must be a part of our strategy of curriculum change if the phase of actual utilization or active consumption of new materials and designs is really going to happen.

Presentation of New Resources

Let us take one more step up the curriculum process ladder now, to the presentation of new resources. One school system has been talking about this in terms of the teachers providing guaranteed opportunities for the children. What are the functions of the teacher in supporting a creative process of utilization and what kind of help does this teacher need? Basically I think that the three types of sources of help are the assistance that comes from outside expertness resources, help that comes

from the teacher's peers (his colleagues, teacher colleagues), and help that comes from his learning group, the class or classes. A teacher certainly needs to be helped to be actively a seeker of new expert resources, learning new concepts, new techniques continuously as they are emerging and becoming available. Just as important the teacher needs to have the active collaboration with colleagues in sharing practices, learning together, and facing needs for new skills. Finally the teacher needs to be able continuously to have the tools to diagnose his own class situation, to involve the students in adaptations of curriculum, invention of new procedures, exploring of new resources as needed.

What are some of the problems with these three functions as they now seem to exist in our work with school systems? First of all, in relation to reaching out toward outside resources, we find the teacher typically not involved in the review and evaluation and exploration of the relevance of new materials, not highly involved in decisions about usage, certainly not highly involved in decisions to work on adaptation of the new materials in development projects.

Second, we find the teacher conspicuously deprived of help to achieve the kind of conceptual framework that is needed in order for him to become a creative user of materials. We find, in terms of relations to colleagues, there are a variety of inhibitions to sharing, many fears and cautions around sharing, the needs for skill development and collaborating on skill development work. In work with the class we find typically that teachers have not learned how to use students as collaborators in the process of change and in trying out of materials. Nor do they have the tools to get feedback from students to evaluate their responses as the curriculum consumer.

As I see it, the priority needs at this level of presentation of curriculum by teachers are: First, a need for involvement in the conceptualization of curriculum framework criteria and an opportunity to review materials and designs in terms of criteria; second, a need for freedom to explore the new skills needed for utilizing curriculum in learning experiences; and third, a need to have help in developing and using tools for getting feedback about success of use from their pupils and students.

New Resources Adoption

Let us move on up the process ladder to the phase of new resources adoption. There was an embarrassed silence recently in a curriculum committee when one committee member said, "I don't feel very clear as

to how we can decide whether to use this new curriculum package, because I'm not clear what results we want." In the discussion that followed there were phrases like, "prepare for test," "easy to teach," "wide sequence," "attractive materials." They never really got back to her question.

The adoption decision is, of course, a crucial educational event. It opens up potential opportunities for teachers and pupils. How is this decision made? What resources are mobilized in making it? Who are involved in making it?

It seems to me that an adoption decision must involve at least the following dimensions: (a) It must include involvement of appropriate decision makers in a review of alternatives. (b) There must be intensive exploration of value judgment criteria having to do with thinking about the validity of the resources that were used in the development of the materials, the organization of the resources, the relevance to learners, and many others. We found high involvement on the part of teachers and administrators when we worked out with them a set of rating scales for making a "consumer research" evaluation of a large number of educational innovations. They worked as rating panels to judge "relevance for adoption." (c) A third part of the adoption decision must be a plan to test alternatives, to test feasibility, and to learn about responses of learners. This process would involve the learners in evaluation of the new materials. (d) Then there must be intensive analysis of the needs for in-service training and adaptation work that would be generated if we adopted this material.

I think one possibility now under discussion is that of having a number of adoption decision institutes in which collaborating, neighboring school systems would have representatives get together to use resource persons in probing the development of criteria for making adoption decisions. One of the biggest potential values of thinking through in a very basic way the process of adoption decision is that it pushes deeply the clarifying of criteria about what are the results we really want. A second value is that this process provides a very significant in-service development process for teachers.

New Resources Search

The next step of the change process, moving up the process ladder, is the search for new resources. We talk a great deal in education today about the importance of the retrieval of knowledge, about the explosion of knowledge which requires us to set up systems and procedures for

scanning the available resources and selecting those that we need. I suggest that there are three major search arenas for such activity: (a) at home, (b) at the neighbors' and (c) abroad.

First, at home. Our inquiries into the innovation and spread of creative teaching practices within school systems have led us to recognize that in every school system there are a great variety of creative curriculum practices which remain invisible and inaccessible, known only to the inventor, and therefore lacking influence in the curriculum change process. Even when such barriers begin to break down within the system there is great caution about sharing with neighbors and seeking from neighbors, by which I mean neighboring school systems. Also there is great unclarity about how to get linked to national resources. There are now several models available for facilitating this search process: nomination procedures for identifying creative practices, clearinghouse procedures of many kinds, university resource teams serving as linking functions. One great problem has been that of securing documentation of the creative practice. Usually where one finds creative practice, there is a lack of documentation as well as a lack of validation through evaluation.

In experimenting with sharing of practice institutes, we have been finding that teachers do become interested in moving from casual gossiping to disciplined professional dialogue about what they are doing, how they are doing it, traps they have discovered, the failures experienced, the difficulties, the skills needed to successfully adopt the new practice, if you are going to tackle this. These are topics not typically covered in the dialogue between teachers about their practices.

New Resources Distribution

Let us turn now to the distribution phase of this curriculum change process. It has seemed to many that diffusion only requires a straightforward job of publication and publicity, and the help of salesmen and newsletters to get developed materials distributed. But in education we must cope with problems and barriers to diffusion which have tended to be submerged. The diffusion of educational curriculum is in many ways a very different problem from the diffusion of a new insecticide, a new fertilizer, a new drug, a new machine.

New curriculum is not in the same sense a thing that can be passed on. It is a set of resources which support the performance pattern of a teacher and support an interaction pattern between learners and teachers. So a major component of distribution of any such curriculum

resources is the in-service learning resources for the teachers which must be a part of the distribution package and the process. The most frequent restraints to the support of the distribution of some of the more exciting types of new curriculum resources are submitted in the statements: "The teachers couldn't teach it." "It requires too much skill." "They wouldn't put in the time to learn."

We have discovered that if teachers have the opportunity they will engage, on their own initiative, in learning activities to achieve skills needed to master the use of new curriculum that they have come to understand, to be excited about, to be free to adapt. For example, we are currently testing several skill resource packages for social studies teachers. One is on producing behavioral specimens for study, another one is on stimulating inquiry questions, another is on leading a value discussion. All of these include records for the record player, listening guides, practice exercises, etc. We have been experimenting with the degree to which teachers can be motivated to do this work alone at home with their own record player, the degree to which it requires pairs, trios or study groups, and the degree to which a supervisor or coordinator in the system is needed to support the process of in-service inquiry. We have many exciting examples of teachers in pairs and trios initiating their own in-service training programs with the materials available.

There is a great need for extension agents as part of the distribution system and for the intelligent training and use of publishers' agents. There could be a revolution in effective diffusion, I believe, if the training for publishers' agents included some of the kinds of training that is now going on in the drug firms for some of the creative detailmen. As I see it, some of the biggest needs in this distribution area are for teaching-learning resources as a part of distribution, the consultation on conceptual frameworks needed for effective choice behavior, and the development of various kinds of extension agents.

New Resources Development

Finally, let us look at the initial phase of the process, the development of new resources. The research and development process in the creation of new curriculum resources may be as local as one inventive teacher responding to a need by creating a new unit. It may be as large as a major university Research and Development Center team working on a K-12 sequence of new materials.

As the store of relevant knowledge for any learning goal becomes greater, our responsibility for responsible retrieval, integration of

knowledge, providing aids for core learning experiences, clearly becomes greater. This seems to imply more comprehensive teams for development of curriculum, more systematic procedures for the selecting and producing of curriculum resource materials. But as our sophistication increases about what pupils and students need as learning experiences to prepare them for the challenges of continuing learning and for changing occupational roles, we discover that more creativity and variability than ever are needed in every classroom of the land. There is now more need than ever to use all available human and material resources in an infinite variety of locally appropriate patterns to provide learning opportunities in such a way that children will utilize these and grow in the process. Otherwise, there is no payoff.

So the job of curriculum development has several key requirements. We must do the best possible job of identifying the priority learning experiences and the needed support from curriculum resources. What are the core units of knowledge? What are ways of relating these to the levels of experience and interest and competence of learners? What are the ways of helping teachers understand and use the resources skillfully? What are the tools for getting evaluation of the materials and their use and effects so that the process of curriculum improvement can be continuous?

Agent of Curriculum Change

This has been an overview of what seem to me the important dimensions of six phases of the curriculum change process. Let us focus now on a key element in this total change process—the curriculum change agent in the local school system.

Such a change agent, of course, may be a person or a group in the school system. The curriculum change agent, I believe, has at least five core responsibilities: (a) to link the world of outside curriculum resources to the classroom teacher, (b) to give leadership to the process of defining educational objectives, because this is required in any search for resources, (c) to coordinate the process of working on adaptation of the material, (d) to facilitate and support in-service development of procedures in the use of materials, and (e) to develop the support system which must surround and help every teacher; support through colleagues, administrators, parents. This support system is cruical if he is to be innovative, creative, and risk-taking in development of new curricula.

Let me project what I believe is actually needed by describing, not

an actual school system or situation, but one that I have created from elements that are in a variety of schools I know about. This school system has a Coordinating Committee on Curriculum Resources Review, Development, Utilization and Evaluation. This is a team made up of outsiders and insiders from the school system, chaired by the assistant superintendent for instruction, with membership including two persons who are college-based, one a curriculum specialist and one an educational research coordinator. One person on the committee is director of manpower development and training in a local industry, one is a creative program director of a local child and youth serving agency. Then there are two or three curriculum coordinators in this system, two principals, several teachers, two students representing the curriculum subcommittee of the Student Council. There are a number of task forces which have been activated and are maintained and coordinated by this coordinating committee. One of these is the task force on curriculum resource retrieval and review. Likewise, there are several upper level students in this group. The task force has a budget for telephone to the outside world, some travel, help from a secretary for correspondence. During their process of reviewing they develop memoranda to their colleagues and to the board of education and to the student council curriculum committee, keeping them informed about new potentialities and beginning the process of exploration of these.

Another feature of this system is that there are a series of try-out or demonstration teams which are busy testing and adapting new curriculum resources and sequences. These teams are not selected as permanent demonstration classrooms for schools within the system. They are voluntary temporary teams, perhaps for a year, perhaps for two or three years, with consultants as needed. Each team includes members committed not only to trying out the materials in the classrooms, but to documentation and evaluation. These projects are used for example as research field work sites for the high school social science class and the social science club. In other words a great deal of the observing, interviewing and documentation goes on as a part of the field work of the social science class and club. We find evidence of the high motivation and the fine quality of this kind of student research help and assistance also in test development.

Another item in this picture is a continuing task force on educational objectives and assessment. The job of this group is that of continuing inquiry into and formulation of educational goals and values, involving colleagues continuously in a search for and development of tools and procedures for evaluation and feedback from students. This group

includes not only administrator and teachers and students, but also a board member, two parents with special resources, one of whom is a father with computer skills and another is a person who has had some social science training. There is also a college-based colleague from educational philosophy in this group. We have found that the dialogue between the philosopher and local businessmen and local educators can be very exciting when this is directed toward identifying and facing the issues of educational goals and their implications.

Another of the important task forces is the one on educational resource exchange. This includes members from several school systems and also from public, private and parochial schools, and the several other youth serving agencies in the community. Members of this task force conduct practice-sharing institutes. They also work on the selection of practices for documentation, because they are developing a tape library. This is a library where a teacher can get tapes about teaching activities, very often these are intensive interviews which we have been calling innovation or documentation interviews. These assist the teacher who can go and listen to tapes when he is not able to go and visit other classrooms. There are also planned clinics and visitations. We have found that a very important basis for exchange of new practices and thinking about these is to have teachers and other youth workers in the community involved in the same clinics. There is much to learn from those workers who have to depend on getting their young people into programs voluntarily.

One of the most active task forces in this school system is the one on community resource utilization. Several hundred adults in the community have already been identified as significant curriculum resources. Procedures for recruiting them, for briefing them, for getting evaluation of their peformance, for giving them feedback and for coordinating their use are all active functions of this task force. The amount of feasible contribution time that each person in the resource pool can give in order to prevent overload is estimated. Some of these may be indicated in terms of four or five hours a year, some in terms of many hours. This represents a rapidly growing resource pool as this group continues its work, with a steady increase in the skill of those who are the resource persons and a steady increase in the skill of the school system, the teachers and the students to use these resources effectively.

One more of the task forces should be mentioned. This one has become quite central to the curriculum enrichment program in the school. This is the task force which develops and coordinates the cross-age educational aides program of providing opportunities for older

students to collaborate with teachers as educational helpers at lower grade levels. These cross-age helpers represent age gaps of from three years up to seven and eight years. There are high school students working in junior high, there are junior high school pupils working in all levels of the elementary school, there are fifth and sixth graders working in kindergarten, first and second grades. Typically, each of the educational aides puts in about three half-hour or 45-minute periods a week, in addition to his participation in the in-service training seminar which is a weekly meeting, and also the briefing period when he is briefed by the receiving teacher as to the kind of help he will be giving during the next week or two weeks. There is a steady growth of applications from teachers who want this kind of resource help in their classrooms and from youngsters who want to give help. Evaluation indicates that older aides show significant academic improvement themselves, show great increase in motivation to learn, tremendous change in attitudes toward the adults who are teaching them. There is a great enrichment for the talented in terms of acceleration opportunities, and an effective outreach to those who are alienated from learning and teachers.

Another important part of the educational development process in our school system is the program of opportunities for continuing learning. This is voluntary, but increasingly it represents an important part of the values and expectations and norms of the peer culture of teachers. There is an educational-goals seminar that holds regular sessions in which participants have discovered how to work on the problem of goals by looking concretely, not at nice statements of goals, but at the discrepancies between their goals and their behavior. Participants have looked at data which have indicated the very low correlation between the goals statements by teachers and the observed performance patterns of teachers, and are taking this seriously as one of the challenges for themselves.

There are weekly clinic periods, as another part of the program, on the skills of designing learning experiences and of making effective intervention decisions. We have found that some teachers are very creative at the design level, but are very inept at the level of making decisions to intervene effectively in interaction with students. Others have the potential of being intuitively skillful, but are very poor designers, so that weekly clinics are working on both skills. A team of pupils, by the way, is always available as a collaborating team. One study team of a dozen teachers, had effective collaboration from one liaison student who could, within a half-hour, get in touch with ten fellow students who

would come to give the teachers opportunities to try out these ideas to get full feedback from the student helpers.

There are also, several times a year, weekend personal and professional growth laboratories. Some of these, in fact, are laboratories in which teachers, students, counselors, administrators and parents are all together in the same sensitivity training groups, working toward improving the conditions of learning through improving openness and skill of collaboration. Then there are a great variety of summer work groups working on adapting curriculum resources, developing new sequences, planning new demonstrations, developing evaluation designs and tools often using university resource consultants.

This is actually not a dream. This is a brief projection, all the elements of which have been innovated in various school systems. They have not yet been put together as a single total operating design for curriculum change. Yet such designs as this are not just feasible, they are a pressing necessity. Only through such designs can teachers be given the support and the preparation they need and want to become the carriers and implementers of high quality curriculum change. If all of this effort is to amount to anything it will be because the young ones thus become involved in the excitement of learning, in the sharing and commitment to learning, and in a commitment to the voluntary discipline of using teachers and others as resources for growth in competence and in connectedness with our joint enterprise which I assume to be the functioning and development of our society and of ourselves.

ASCD Publications

(The NEA stock number appears in parentheses after each title.)

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